

# AMERICAN RAILROAD JOURNAL.

## STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, Editor.

ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 136 NASSAU ST., NEW YORK, AT FIVE DOLLARS PER ANNUM IN ADVANCE.

SECOND QUARTO SERIES, VOL. VII, No. 40]

SATURDAY, OCTOBER 4, 1851.

[WHOLE No. 807, VOL. XXIV.

### ASSISTANT EDITORS,

J. T. HODGE, *For Mining and Metallurgy.*  
GEN. CHAS. T. JAMES, *For Manufactures and the  
Mechanic Arts.*

### PRINCIPAL CONTENTS.

"Baltimore" vs. "Philadelphia".....	625
Manufacturing in Mississippi.....	636
Dayton, Ohio, and her Railroad Connections.....	627
Ohio and Mississippi Railroad.....	627
Direct Trade between Europe and the South.....	628
Rome and Watertown Railroad.....	628
Nominal Horse-power of Steam Engines.....	629
Sunbury and Erie Railroad.....	629
York and Cumberland, Penn., Railroad.....	630
New Machine for Blooming Iron.....	630
Mad River and Lake Erie Railroad.....	630
Southwestern Carrying Trade.....	630
New Jersey Iron Manufacturing.....	631
Androscoggin and Kennebec Railroad.....	631
Philadelphia and the West.....	631
St. Andrews and Quebec Railroad.....	632
Great Western Railroad.....	632
Stock and Money Market.....	632
Pittsburg and Steubenville Railroad.....	633
Chartier's Creek Railroad.....	634
Proposed Railroad from Nashville to the Miss.....	634
Northern Railroad.....	634
History of New York Railroads.....	635

### American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO., 136 NASSAU ST.

Saturday, October 4, 1851.

For the American Railroad Journal.

### Marietta and Philadelphia vs. the Parkersburgh and Baltimore Railroad.

Under the above heading, an article signed "Philadelphia," appears in the Journal of 23d, in reply to one signed "Baltimore," in that of the 9th of August last.

Circumstances have not permitted an earlier notice of what is said by "Philadelphia." To that in it which requires comment, the following remarks are addressed.

The mode employed by "Baltimore" of estimating distances upon surveyed lines, is sneeringly spoken of by "Philadelphia," as a "convenient" method—whereby, with the aid of a "sliding scale," any desired result may be produced.

To this imputation of unfairness it is simply answered, that at least as much confidence is to be placed in such measurements upon authentic maps with due allowance for increase of distance by ne-

cessary deviation and curvature, to be determined by the known topography of the country, and the ascertained results of surveys for similar objects, over such ground—as in lines run for effect, without due regard to the principles which should govern railway locations, but to help the projectors of such lines to raise the capital to make them. I charge this kind of trick upon no one particularly, but I do aver that it is in all cases proper to suspend opinions till the plans, profiles and estimates of cost upon competing routes are exhibited. The public will be wise enough to await the result of these further developments before they decide.

Further discussion about distances would be fruitless. The facts will be known in due time, and with these before them, the profession and the public will determine who has the best line. Until their incorrectness is demonstrated, I shall adhere to my estimates of distance heretofore offered—and which make the Parkersburgh and Baltimore route from Philadelphia to Athens 519 miles (with the Knobly cut-off,) while between the same points the route via the Hempfield road and Marietta would be 530 miles—a difference in favor of the Baltimore line of 11 miles, instead of one of 23 against it, as asserted by "Philadelphia;" who has, however, abated 21 miles of the difference claimed by the party who preceded him on that side of the question.

Next as to the time of transit, which is well enough said to measure distance to the traveller. Let us see if some mistakes have not been made by "Philadelphia" under this head.

#### First. The Baltimore and Parkersburgh route.

1st. He allows 6 hours for the 98 miles between Philadelphia and Baltimore—only 16½ miles per hour over one of the straightest and most level routes in the country—and he asserts this to be the "express mail time" over that road. But the fact is otherwise. The express mail, while it ran during the interval of steamboat navigation, made the distance in 4½ hours, notwithstanding the obstructions mentioned by Philadelphia. The "boat" at the Susquehanna is not a row-boat, as he would appear to wish us to believe, but in fact a floating bridge, on which the entire train of cars might be carried over, were it not considered best to let the passengers loose for a little while, with a loss of not more than ten minutes of time. The "various streams and indentations of the Chesapeake," re-

ferred to as crossed by "long trestle bridges," are the Gunpowder, Bush and Back rivers, about 1½ miles wide in the aggregate. The speed over them might safely be 20 miles per hour or more; but reducing it to 10 miles per hour, and comparing that speed with the average of 25 miles over the rest of the road (which can be made with more ease than over any section of the Pennsylvania route of equal length) the loss of time upon these bridges will be but 6 minutes; and the total loss upon them and at the Susquehanna together will be but 16 minutes. Then 98 miles, at 25 miles per hour, with 16 minutes of time lost, will give a total time of 4 hours and 12 minutes instead of 6 hours; and the time can readily be reduced to 4 hours.

2d. Philadelphia makes the distance from Baltimore to Parkersburgh 400 miles, which at his assumed rate of 25 miles per hour, would give just 16 hours; but he makes it 17½ hours, besides the other allowance next mentioned. His arithmetic has been at fault here, as I shall have to show that it has also been at another place.

3d. He allows 2 hours' loss of time by high gradients; meaning those of 82, 105 and 116 feet per mile, which he professes to set forth in detail. Now of these gradients the one of 82 feet on each side of Parr's ridge occupies 4 miles, those of 116 about 20 miles, and those of 100 and 105 about 13 miles—making a total of 37 miles out of 519 miles. Upon these grades an average speed of 20 miles per hour up and down can be safely maintained; but allowing 2 hours to pass the 37 miles at 18½ miles per hour, while at 25 miles per hour they would be passed in 1½ hours, we have a loss of but ½ hour, instead of 2 hours as asserted by Philadelphia.

4th. A delay of ½ hour is estimated for the crossing of the river at Parkersburgh "for want of a bridge which cannot be supplied." But this is a groundless assumption. The river is little more than ¼ of a mile wide, and a floating bridge can carry the whole train over with no more loss of time than the 10 minutes allowed at the Susquehanna. Nor can any one but a stockholder in the Wheeling bridge look upon that as the only point on the river where a similar structure can be built, and at an elevation which will at once and forever put it out of the way of the navigation. By a bridge of this character, also, the Susquehanna will no doubt be passed at a future day, while the pile bridges over the inlets of the Chesapeake will be

converted into solid embankments of earth.

5th. From Belpre to Athens, 36 miles, the time is put at 1½ hours, and as this computation is very nearly right, though still a fraction too much, we will not disturb it.

*Second. The Hempfield and Marietta route.*

1st. Athens to Wheeling in 4½ hours, at 25 miles per hour, gives a distance of but 112½ miles. It would probably turn out not less than 122 miles when properly located, and that would make the time 4 hours 53 minutes at the assumed rate of speed.

2d. Wheeling to Philadelphia in 16 hours, at 25 miles per hour, would give a distance of but 400 miles. It is likely to turn out 408 miles, which would give 16 hours 20 minutes, to which add for loss of time on 10 miles of 95 feet grade, at 20 instead of 25 miles per hour, 6 minutes, and the total time becomes 16 hours 26 minutes. No allowance is made by "Philadelphia" for loss of time in the river crossing at Wheeling. Yet, although the Ohio is bridged there, the bridges were neither of them built for locomotive engines, nor indeed for railway cars. They are not stiff enough to carry such loads, and if they were, the grades up to and over them are too strong for anything but horse power at a very slow speed. There is, moreover, an island some half mile wide between the bridges, which must be considered a part of the crossing; so that, all things considered, it will be but fair to allow at least as much delay at Wheeling as at Parkersburg, or say 10 minutes for passing the river.

Revising now the estimates of "Philadelphia," so as to correct the errors above shown, both in time and distance, we have the following:

*1st. Philadelphia, via Baltimore and Parkersburg, to Athens.*

	Hours.	Min.
Philadelphia to Baltimore, 98 miles, at 25 miles per hour, with 16 minutes loss at the Susquehanna .....	4	12
Baltimore to Parkersburg, 385 miles, at 25 miles per hour, with ½ hour for grades .....	15	54
Parkersburg to Athens, 36 miles, at 25 miles per hour, with 10 minutes for crossing river .....	1	36

Total distance 519 miles, and time..... 21 42

*2d. Philadelphia, via Hempfield and Marietta, to Athens.*

	Hours.	Min.
Philadelphia to Wheeling, 408 miles, at 25 miles per hour, with 6 minutes for grades .....	16	26
Wheeling to Athens, 122 miles, 25 miles per hour, with 10 minutes for crossing river .....	5	03

Total distance 530 miles, and time..... 21 29

Difference against Baltimore route.... 13

Thirteen minutes at most, instead of seven hours, as estimated by "Philadelphia."

And the passenger from Athens, instead of reaching Philadelphia an hour sooner than Baltimore, would reach it full four hours later. That is, Baltimore is at least 4 hours nearer to Athens than Philadelphia.

The average velocity upon the Baltimore route would then be 24 miles per hour, and upon the Philadelphia route 24 7-10 miles; the latter about three per cent greater than the former; and by this mode of computation, the grades of the Pennsylvania route would be only that much better than those of the other; certainly a very small advantage, after all that has been said on that subject.

Lastly, As to ascents and descents, and distances

equated for them, "Philadelphia" admits that he has not seen the profile of the Baltimore road, yet he adventurously dashes into an estimate, with the following results:

He first boldly assumes, without an attempt at proof, that the mountain grades of the Pennsylvania railroad are just balanced by those [and the curves] between the Patapsco and Potomac on the Baltimore and Ohio railroad: meaning, of course, those at and near Parr's ridge. The fact, however, is, that the grades of 82 feet per mile at that ridge, surmount in 4 miles an ascent and descent of but 340 feet, on curves of radii not less than 1500 feet; while the mountain grades of the Pennsylvania railroad, between Altoona and Johnstown, in 10 miles on the east side with a maximum of 95, and 30 miles on the west side with a maximum of 52 8-10 feet per mile, the whole distance being 40 miles, and the shortest curves of 800 feet radius, surmount an ascent and descent of 2022 feet, about six times as much as the other.

With this basis for an equation, "Philadelphia" proceeds to estimate the altitude overcome by the mountain grades of the Baltimore and Ohio railroad, and makes it 3226½ feet of ascents and 1511 feet of descents; a total of 4737½ feet. But in order to produce this product, he has to show that 11½ multiplied by 116, makes 2334. The real product of these figures, it will be seen, is 1334; just 1000 feet less than "Philadelphia" makes it. Without discovering his mistake, however, he goes on with right good will to frame his "equation;" and with 66 feet as the equivalent of a linear mile for his divisor, he shortly figures out an addition of  $\frac{4737\frac{1}{2}}{66}$

= 72 miles, to be added to the 23 miles previously made out against the Baltimore route. Thus the difference in favor of Philadelphia is increased to 95 miles—just about the distance between the two cities, the latter of which is thus brought as near to Athens as its rival. I shall forbear to retort the sneer with which my own mode of estimating distances is called a *convenient* one; but really this result does look as if the rule by which it is reached were constructed somewhat upon the *ex post facto* principle. "Philadelphia" cites one of the parties to the Grave and Fish creek controversy, in support of the use of 66 as a divisor. That person is doubtless obliged for the compliment, but would, I suspect, be quite willing to give way on this occasion to the authority of the other party to that discussion, who makes 160 feet of rise and fall equivalent to a mile of measured distance. With this last divisor, and correcting the mistake of 1000 feet  $\frac{3737\frac{1}{2}}{160}$

just noticed, we should have  $\frac{3737\frac{1}{2}}{160} = 23\frac{1}{2}$  miles only, instead of 72.

Computations so full of false assumptions and arithmetical blunders as those of "Philadelphia," cannot profitably be followed further. I therefore pursue them no longer, as it has been sufficiently shown how little that writer is to be relied upon for correct figures: and if not for them, why for aught else? To the professional authority quoted as not only of the highest but most "disinterested" character upon the points at issue, I must demur, and express my entire dissent from the conclusions of that authority, the incorrectness of which must be sufficiently evident, when it is observed that he makes the whole cost of transportation proportional to the extreme load that an engine of given power can draw upon the extreme grade of each road.

The assertion of "Philadelphia," that there is no charter permitting the Hillsboro' company to go to Belpre, has been contradicted decisively enough by the publication of that charter in the Railroad Journal of 13th September. Even if an obligation under this charter, to go to Marietta, were conceded, [although it is more than doubtful,] there is no prohibition of Belpre, but an unlimited authority to go almost anywhere in the State of Ohio. Such a right would be cheaply bought by the cost of a road of 12 miles up to Marietta on the river bank. But as Marietta would be fully accommodated by the Chillicothe road, it could not be difficult for the Hillsboro' company to procure a release from the making of this useless section. As to the difficulty suggested by "Philadelphia," in the constitutional non-ability of counties and towns to subscribe to such works hereafter, it is first to be seen what the securities of such communities are really worth in the New York market.

The part of his paper in which he is most at home, is that wherein he speaks of the extent and value of the trade of southern Ohio, Kentucky and Tennessee; and I only differ with him here in regard to the share of it which the city of Baltimore is likely to possess. It is not much to the purpose to say that the city of Philadelphia may have had most of it heretofore. A new order of things is about to arise. The smaller community will also be the nearer one to this valuable trade, and cannot be deprived of her share by the jeers of the larger one. If Philadelphia to her greater capital can add the greater enterprise necessary to draw the trade of those rich sections to herself by an attraction so strong as to make it elude the grasp of Baltimore even while passing through her streets, the former city may well afford to the latter "the price of a breakfast or supper to the traveller," as he hurries on his way to her. But Baltimore has her claims as a *terminus*, as well as a *thoroughfare* of trade and travel; and although these have been somewhat lost sight of in comparing her great line of road from Cincinnati with other routes to the more eastern cities, yet they will be thoroughly asserted, and with a success that will surprise both Philadelphia and New York. BALTIMORE.

**Manufacturing in Mississippi.**

We find in the Clinton (Louisiana) Floridian, an interesting sketch of the cotton factory at Woodville, Miss., which is now in active operation and turns out per week 38,000 yards of Lowells. Both as to finish and durability the goods are of the first order—the linseys particularly fine. The demand for both the cotton and woolen fabrics is greater than the supply. The experiment so far has equaled the most sanguine expectations of the founders. The factory comprises one brick building four stories high, which contains the whole apparatus for manufacturing. There are one engine, eighty horse power, two lappers and willows for preparing the cotton, thirty-six cotton cards, two drawing frames, four railway heads, five speeders, one batting card, two wool cards, one jack, four thousand spindles, two spoolers, two warpers, four dressers, eighty looms, and all corresponding machinery calculated to do 38,000 yards per week. The capital invested \$75,000; the profits when in full operation are about fifty per cent. The number of operatives is generally one hundred and twenty five, at a cost of \$4 25 per week. For the operatives, there are three brick buildings, two stories high, with a basement seventy-five feet long. Each building contains four tenements.



**The City of Dayton, Ohio, and her Interests in connection with the Dayton and Western Railroad Company.**

Ohio truly takes her position as the first Agricultural State of the Union, and is closely connected in all her interests with Pennsylvania, the largest manufacturing State, also with Indiana, another of the great agricultural regions of our country.—These three States number over five millions of inhabitants, almost one-fourth the entire population of all the States. The business transactions, and social communications between these three States must be far beyond any present calculations.—Who can estimate even the number of persons who will constantly pass east and west from these agricultural, manufacturing, mineral and coal regions to other parts of our common country? No one. The great question then suggesting itself, and which is becoming very important to tens of thousands of our people is, Through which great channel shall this immense product, trade and travel pass in its transit east and west to market? I hesitate not in saying that its course will chiefly be over the *magnetic central back-bone line of railroads*, having its triple head in the cities of New York, Philadelphia and Baltimore, and running through the centre of Pennsylvania to Pittsburgh; and from Baltimore through Maryland and Virginia to Wheeling and Parkersburg, and from these places to a common centre in Ohio, and from thence west. *That centre I claim is to be Dayton.* Who will deny it after examination? Start with your finger upon the map at Pittsburgh and follow the line of railroad to Beaver, Wooster, Loudonville, Delaware and Springfield to Dayton. Or from Pittsburgh again trace the line running through Steubenville, Newark, Columbus and Xenia to Dayton.—Or place your eye upon the map at Wheeling and follow this arm of the Baltimore and Ohio railroad company to Zanesville, Columbus and Springfield or Xenia to Dayton; or from another arm of the same road reaching the Ohio river at Parkersburg, Marietta or Belpre, and from thence west through Chillicothe and Xenia to Dayton and *here in Dayton making a common junction or centre with the Sandusky, Cleveland, Columbus and Xenia, Cincinnati, Hamilton and Dayton, and the Michigan and Dayton railroads.* From this place it passes west with their united trade and travel over the Dayton and Western railroad, as it is united with the Richmond, Indianapolis and Terre Haute road through the very heart of Indiana and Illinois to St. Louis. *What a gigantic chain of railroad is this*, that extends over one thousand miles, and yet is the most direct route between the points named, and is now almost throughout its entire length ready for the—"here comes the train." *Where is the route which unites such vast, extended and valuable interests?*

Look at it upon the map—examine it carefully in all its varied bearings and influence, and then answer whether it is not justly entitled to be called the *Magnetic Central Line?* With New York the very centre of the golden magnet which attracts the monied interests of the whole country, standing at its eastern terminus, and St. Louis in the west holding the key, and all ready to open the door by her Pacific road to the far West, and thus pour into this Central line all the rich products and mighty trade and travel of that boundless country which reaches to Oregon and California. One arm of this extensive railroad route as it passes east from St. Louis will branch off at Dayton and run through Xenia to Chillicothe, thence to Belpre, Marietta

and Parkersburg, and unite with the Baltimore and Ohio railroad company. Another as before named will branch off at Zanesville and run to Wheeling. These things being true, and who can gainsay them, how important it is that the Dayton and Western railroad should be speedily finished. The city of Dayton, together with all interested in this line of railroad, are deeply engaged for its completion; therefore all are ready to rejoice, because this day the company commence laying down the T rail upon which the cars now ready, will soon be running. The progress and completion of this very important line in that chain of railroads which is, at no very distant day, to bind the Atlantic with the Pacific coast, speaks well for the city of Dayton, and will no doubt have a happy influence for good in her future history and prosperity. Indeed the burnished steam car, as it runs over our western road, would seem to be the crowning jewel in her crown of macadamized and railway improvement.

The President of the Dayton and Western railroad company, in his exhibit of the condition and prospects of his road, gives a picture not over-drawn of the city of Dayton, viz:

**DAYTON.**

This handsomely laid out city is situated on the south bank of the *Great Miami River* immediately below the juncture of Mad river and Still water with the Miami. The locality of Dayton makes it a prominent point and focus in the great chain of railroads. Its character and importance are already developed, and are not to be made by future improvements. Dayton must be, to the various railways diverging from her, as Lowell and other manufacturing cities, a prominent feeder to each. Her population is about fourteen thousand inhabitants, with a water power, when fully developed, equal to 200 run of stone, and in the midst of a country and valley overflowing with every product. The enterprise and intelligence of her citizens is marked—her fine churches, schools, markets, public buildings, and institutions point to the one—the other is illustrated by the development and application of her water power. There are now in successful operation within her limits, six flouring mills, five oil mills, producing 400,000 gallons linseed oil and 3,000 tons oil cake per annum, six saw mills, four cotton and three woolen mills, four paper mills, one flax factory, six large machine shops, five foundries, three breweries, one extensive car factory, one file factory, one burr mill stone factory, one bobbin and turning factory, one lath factory, several carriage factories, with a number and variety of extensive shops in the various branches of mechanical industry, producing for the necessity of a wide extent of country that is attracted to it. There are now finished to Dayton sixteen distinct gravelled or macadamised turnpike roads, radiating from 50 to 20 miles in every direction, through a country second to none in this or any other land, with a canal passing thro' it north and south from the Ohio at Cincinnati to Toledo on Lake Erie, with numerous streams furnishing water power to every portion of the country, and upon which are erected factories, mills and distilleries, &c. These improvements make Dayton the depot for its commerce. The additional influence which railways will give to this sketch of present prosperity is obvious.

And yet more can be said. Already, and even since this report, is Dayton stretching out still further iron arms that will add much to her commercial importance, and aid in binding more closely portions of our country now widely separated.—Look at the map, and trace the great North Western railway, starting at Milwaukee and Chicago, thence to Peru or Logansport on the Wabash, and from these along the valley of the Mississineway to the head waters of the Miami at Greenville, and thence to Cincinnati via Dayton, and thence thro' Lexington and Nashville to Charleston, S. C.—This road, when completed, will be another of the

most important and attractive railroad communications in our country, connecting, as it will, the northwest with the southeast. Upon this route, Dayton will be a very important point, because of its position at the junction of the Sandusky, Cleveland, Columbus and Xenia, Cincinnati and Hamilton, and Dayton and Michigan roads.

From the report above alluded to, we learn that this central route approaches nearer to an air line between New York and St. Louis than any other now surveyed or making. Also that the excess of taxable means on this route over that of any other, through Ohio, Indiana and Illinois is equal to fifty millions of dollars.

Another very significant and remarkable fact is, that all the railroads now constructing from the Ohio river, and running north, have their termini in this great central line; and this is true, almost without exception, of all the roads now being constructed from the Northern portions of Ohio, Indiana and Illinois. The mention of the names of the chartered companies thus having their termini in this great thoroughfare will surprise every one. In Ohio, on the south, you have the Marietta and Belpre roads, referred to in this communication, the Cincinnati, Hamilton and Dayton, the Little Miami railroad, Cincinnati and Zanesville, and the Hamilton and Eaton roads. On the north, the Steubenville and Newark road, the Springfield and Loudonville road, Cleveland and Columbus, Mad River and Lake Erie, Dayton and Michigan, and the Greenville and Miami roads.

In Indiana you have, entering from the north, the Newcastle and Richmond, the Bellefontaine and Indianapolis, the Peru and Indianapolis, the Lafayette and Indianapolis, and the Lafayette and Crawfordsville roads. And from the south, the Evansville and Vincennes, the New Albany and Salem, the Jeffersonville and Columbus, the Madison and Indianapolis, the Edinburg, and Shelbyville and Knightstown roads. The names of the roads in Illinois I have not at hand. But these facts are sufficient to show that two things are certain:

1st. That this is to be the great road of roads running east and west, connecting the Atlantic ocean with the Mississippi river.

2d. That the stock will pay good dividends.

B.

**Ohio and Mississippi Railroad.**

A telegraphic despatch was received in this city yesterday, from a reliable quarter, which furnishes the agreeable information that Seymour, and his associates of New York, have contracted to build the entire road between Cincinnati and Vincennes, Indiana.

This portion of the road between Cincinnati and St. Louis, is the roughest and most difficult of construction. Now that its completion has been secured, we can see no real obstacle in the way of the early construction of the residue, between the Wabash and the Mississippi—thus giving us a line of railroad reaching from the Mississippi to the Atlantic.

The Ohio and Mississippi road when built, will cross the Central railroad leading from Cairo to Chicago and Galena, the Evansville road from the Ohio to Terre Haute, in the heart of Indiana; the Louisville, Jeffersonville and Indianapolis railroad, and the Madison and Indianapolis railroad. If the proper exertions are made, within three years we shall have a railroad communication to Louisville, Nashville, and thence to Savannah and Charleston—a railroad communication to Memphis—a railroad communication to Cincinnati and thence to Baltimore and Philadelphia, by two different routes—and we shall be connected with New York and Boston by railroads of great speed and excellence. —*St. Louis Republican.*

**Direct trade between Europe and the South.**

The late commercial convention at Richmond, Va., and a recent call for a planter's convention at Macon, Ga., are indications of a growing feeling which pervades many sections of the south, to enter more largely into commercial and manufacturing pursuits, as a means of advancing their pecuniary interests and maintaining their commercial independence and prosperity. While the foreign trade of this country is increasing so rapidly, the South begins to feel that she has not that share of it which she might secure by entering into vigorous competition with northern enterprise and capital. Within a few years, the total foreign trade of this country has increased fifty per cent. Our imports and exports, which amounted in 1845 and 6 to about one hundred and twenty millions each, have risen to nearly two hundred millions. And this change has been, to some degree, at the expense of our domestic trade. In 1846, the consumption of raw cotton in the United States was 427,567 bales. In the present year, it is ascertained to be about 464,000, and in this year a much larger portion must have been used by Southern factories and consumed at home, than before.

In view of these facts, the South are beginning to inquire why it is that the commercial intercourse between this country and Europe has hitherto been to such a great extent confined to New York and other northern cities. The Savannah Republican answers that question as follows:—

"Providence has conferred with a liberal hand upon the South, all the elements of greatness and independence. Indeed, His munificence seems to be the prime cause of Southern apathy and neglect of our true interests. With a soil rich, varied and productive—with a climate mild and genial, nature spreads out the tables of luxuriance and ease, and invites us to the feast, with scarcely an effort on our part of labor or enterprise. Want has never pressed upon us a feeling of that necessity which would compel us to live by our 'wits.' Enticed by our agricultural pursuits and rural pleasures, and enriched by the productions of our fields, we have entirely neglected commerce and navigation. We have been content to let England and the north do our carrying trade and make our commercial exchanges. They constantly wait at our doors to bear away our productions, and bring back to us the luxuries of foreign climes. The productions of our fields, and the commerce and navigation growing necessarily out of it, feed and clothe the world—supports the merchant princes of Europe, and supplies with wealth, comfort and ease, those of the North to whom nature has been less beneficent than to us. We, from indolence and ease, have given up our commerce and manufactures to others. They, from these means, have enriched themselves at our expense, and from dependents they have become our superiors.

We are not only now dependent upon others for our commerce and manufactures, but from our inertness we are actually dependent, especially upon England, for the very prices which we are to get for our great staple. They dictate to us the terms, not only upon which we shall dispose of our products to them, but what we shall pay for their manufactures. Every season the manufacturers are earnest in their desires, first to ascertain the probable productions of our fields—knowing well what is their capacity for consumption; and as soon as they ascertain the amount of our productions they quietly, but firmly fix the terms upon which we shall sell to them. On their terms usually, we ship them our cotton to manufacture for our use and purchase our necessities upon their terms again. This is the reason why, from affluence and independence, the South has enriched others and reduced herself to a state of dependence. And how can it be otherwise under the existing state of things? We have no shipping—no manufactories to compare with England and the North. We produce our staple depending upon others to manufacture them into suitable fabrics for ourselves and the

world. Until therefore the order of things is reversed—until we build up our own commerce—until we manufacture our own cotton for ourselves and others—till then, we will be dependent upon others and we shall be subject to dictation and impositions, if not oppressions. It is high time that the South should "awake out of sleep"—should improve the natural advantages we enjoy—throw off our commercial dependence—rid our minds of the delusion that we can do nothing but raise cotton, and heartily engage in the business of manufacturing—building our own ships—carrying our own produce and importing our own supplies; and thereby secure and save to ourselves all the wealth and independence which must necessarily grow out of such a course of action."

The *Southern Press* has also a long article upon the same subject, expressing similar opinions, from which we take the following extract:—

"What, then, is the reason that the principal part of all the commodities we obtain from abroad, are received at the single port of New-York—and that so very large a part of our exports are shipped at the same place? One reason is, that it is probably the nearest harbor to Europe that we have which is open at all seasons of the year. Another is, that through New-York the valleys of the St. Lawrence and Mississippi are most accessible to the commodities and emigrants of Europe. These circumstances give to New-York an advantage, as a seaport and commercial town, over any other in the Union. And with this advantage, New-York becomes the mart where there is usually a greater amount of goods to be bought and sold, than any other place on this continent. The simple fact that she has a greater assortment, secures her almost a monopoly. For men will overcome distance and incur expense, to arrive at the greatest variety and abundance of articles to sell, and hence she obtains the greatest number of buyers, as well as sellers. To such a place capital will resort, because there also are the opportunities of investment greater.

These considerations are sufficient to account for the commercial superiority of New-York over not only all Southern, but all other Northern ports. But there is another, which goes to account for the inferior size of Southern cities. In the South there has always been greater agricultural attractions for capital and labor, than in the North. The soil and climate are better generally, and more congenial to slave labor. Hence, in the South, when merchants become rich, they retire to plantations, whilst in the North the reverse occurs—wealthy farmers seek the cities and become traders. Of course, agriculture largely preponderates in one section—in the other, commerce and manufactures ultimately prevail. And because the cities and commerce and manufactures of the South have not become so great as those of the North, superficial observers have inferred that the South is less enterprising and thrifty.

They were holding last week a jubilee in Boston, because Massachusetts had completed about a thousand miles of railroads. Yet Virginia, with less white population than Massachusetts, has already completed a thousand miles of railroads and canals, and is rapidly progressing with six or seven hundred miles more. And in Virginia, the average density of population is about one-tenth only of that of Massachusetts, and an agricultural people like those of Virginia, do not require to travel half as much as a commercial and manufacturing population like Massachusetts.

Virginia, however, has a large surplus production for export to Europe, the West Indies, and South America. And the question is, has the time arrived when the amount of her exports and imports is large enough to make a direct trade profitable—large enough to concentrate the requisite capital for the purpose?

In determining this question, we must consider some important changes on the other side of the Atlantic. The city of Liverpool occupies the same position as to the other cities of Europe in reference to our trade, that New York does as to the other cities of this country. Liverpool is nearest to us, and concentrates not only the articles of British, but continental production we want. But of late years, manufactures have increased rapidly on the continent—in France, Holland and Switzerland.

And the question now is, whether a Southern port, shall send a large part of her exports via New York and Liverpool to Havre, Amsterdam and Antwerp, and receive her returns by the same circuit, or, go and return direct. It must be obvious that the extra expense of two transshipments on such a route is very great, and the loss of time considerable. And to save these, some advantages could be relinquished, of the more comprehensive markets we now deal in. The cities of the continent have plenty of capital, and we scarcely doubt they can furnish it at a much lower rate, than what we now use. Indeed, we can hardly account for the clumsy and costly manner in which the business is now done. A shipper of tobacco or cotton at present, draws a bill on his consignee in Europe on time, and gets it cashed in an American bank, and pays virtually, ten or twelve per cent. interest, the value of money here. Why is there not in Richmond, Charleston and New Orleans, English, French and Dutch capital to advance on shipments at the rate of five per cent. per annum?

But our limits do not now permit us to pursue the subject further. We shall investigate the charges and duties at the various ports. And we hope when the Macon convention meets, a body of facts will be presented, on which material improvements on the present course of trade can be safely made."

The examination and discussion of this subject in its true light, as the Savannah Republican pertinently remarks, will do more in a few years to "maintain the rights and advance the interests and independence of the South, than could be effected in an age, by the useless cry and clamor about Northern aggressions and Federal oppressions."

**New York.**

*Rome and Watertown Railroad.*—This road, now nearly completed, is at the present time attracting much attention. Not only is it an important enterprise, as constituting the last link of a complete chain of railroad communication between New York and the outlet of Lake Ontario; but the people of Boston and the State of Massachusetts generally are looking to its completion as opening to them a new and rival route, which we think must divert a great portion of the trade from the Ogdensburg route. This new route will be by the way of the Boston and Worcester and the Western railroads, 200 miles, to Albany; thence on the great central line of railroad from Albany to Buffalo, 107 miles, to the town of Rome, 13 miles west of Utica. At that point the Rome and Watertown railroad commences, and runs through the counties of Oneida, Lewis, and Jefferson, to Cape Vincent at the outlet of the lake. This road is now open to Watertown, a distance of 72 miles, and will probably be completed to Cape Vincent, 25 miles further, sometime in November. The whole distance by this route from Boston to Cape Vincent is 405 miles. Cape Vincent, some 60 miles above Ogdensburg, is a point which all the travel and transportation between Boston and Canada West, and other portions of the great west, must pass. It being at the outlet of Lake Ontario, it must therefore be regarded as a common starting point for Boston.

The Worcester Palladium makes a comparison of these routes, as follows:—

"By the new route, the distance will be 405 miles. By the northern, or Ogdensburg route, the distance from Boston to Cape Vincent is 446 miles by way of Fitchburg, Rutland, and Burlington; and 460 by way of Montpelier and Burlington; so that by the way of Ogdensburg, over the Rutland road, it is 41 miles—and by the way of Ogdensburg over the Vermont Central, it is 55 miles, further from Boston to Cape Vincent, than by the new or southern route over the Rome and Watertown road. We are not aware that the northern route has any advantages over the southern to compensate for this excess of distance—41 miles over



one of the roads to Burlington, and 55 over the other.

The general course of the new route, from the outlet of the lake to Boston, is southeast; while by the northern route, nearly or quite one-third of the distance, the course of the route is north-east; which necessarily increases the distance to Boston. Besides, the northern route runs so far north as necessarily to encounter greater quantities of snow in winter than may be expected on the southern route. At Albany there is a change of cars for both passengers and freight; and although they have constructed a floating bridge over Lake Champlain, on the Ogdensburg road, yet it remains to be seen whether it can be made available for passing trains across the lake at all times and under all circumstances.

But it is not in distance alone that the southern route to the outlet of Lake Ontario has the advantage. Over 300 miles of that route is now occupied by strong roads. The line from Boston to Albany has the capacity and power to do ten times as much business as it now does; and the character of the great central line in New York can be determined from the fact that the ordinary receipts on 104 miles of that line, in the month of June last, exceeded \$98,000. In December next, the new law of New York will go into effect, which will allow the railroads in that state to carry freights without paying tolls to the state for the benefit of the canals. A large increase of the receipts of the railroads may reasonably be anticipated from the operations of that law. A large portion of the northern line is oppressed with debt.

The Rome and Watertown road when completed to Cape Vincent—opposite Kingston, Canada West—will be 97 miles in length; and through so favorable a country that its whole expense, when equipped with engines, and cars, (as we are informed by reliable authority,) will not exceed \$1,500,000; or \$15,000 a mile. Cape Vincent has a fine harbor for the commerce of Lake Ontario, which comes to it through the Welland canal, or from the thriving regions of Canada West, north and west of Ontario. The river is readily crossed by a ferry from Cape Vincent to Kingston: where, in time, railroads will start for the great interior, and form the most direct route from the Atlantic to Lake Superior. Canada West is filling up rapidly with an industrious and enterprising population; and the time is not far distant when the Atlantic states will have to look there for their supplies of lumber, &c.

Sackett's Harbor is probably as good a port as there is at the east end of the lake—and probably as good a harbor as any lake port in the country. A branch road is to be built from Watertown to Sackett's Harbor. So the distance from Boston to that port by way of the Rome and Watertown road and its branch, will be 379 miles. The distance from Cape Vincent to Sackett's Harbor is 40 miles; so that from Boston to Sackett's Harbor by way of Ogdensburg, is 500 miles; or 121 miles farther than by way of Albany, Rome, and Watertown.

At the distance of 31 miles from Rome a branch road is to be constructed, 27 miles in length, to Oswego, which will reduce the distance 16 miles below the present route by way of Syracuse.

In another point of view the Rome and Watertown railroad is to have an important influence upon the Ogdensburg or northern route to Boston. It opens a direct communication from the outlet of Lake Ontario to the city of New York, which not only has a preference to Boston as a market, but an advantage of not less than 90 miles in distance. The relative importance of the cities of New York and Boston, as markets, is seen in the fact that during the last year, of the 2,400,000 tons of freight brought down the canals to Albany, only 60,000 tons, or one fortieth part, came to the Western railroad. Possibly an equal amount might have been transported to Boston by water; which would leave nearly 2,300,000 tons for New York city, the towns upon the Hudson, and a few of the miner seaports, such as Providence, Hartford, &c. It is scarcely possible that New York could have taken less than 2,000,000 as her share of the 2,400,000 tons of freight delivered last year at Albany. And now as New York is soon to come into direct competition for the trade that flows down to the outlet of Lake Ontario, it will not do for Boston to in-

dulge very high anticipations of any great accessions of trade through the Ogdensburg route. And until the result of these new routes is known, it seems to us an improvidence, bordering upon folly, to engage in any new experiments for western trade, like that of the Hoosac Tunnel; which, whatever its fortune, must be an oppressive tax upon the industry and capital of the country."

*From the London Athenæum, April 8, 1851.*

#### On the Nominal Horse Power of Steam Engines.

By L. G. HEATH, R. N.

The inadequacy of the present term "nominal horse power" for giving a definite idea of either the absolute or relative power of engines was first examined, by comparing the engines of H. M. steamships Garland and Basilisk, which were both constructed on the same principle, with oscillating cylinders, and were both used to drive paddle wheels. This comparison was made under three distinct heads,—the mean effective pressure, the number of revolutions per minute, and the size of the cylinders. It was urged that Watt's constant of seven pounds per square inch, for the mean effective pressure, was not only in itself inapplicable, but that no constant quantity could be universally applicable. Also, that the method of determining the number of revolutions per minute, from a conventional speed, founded on the length of stroke of the piston, was equally fallacious. It was therefore proposed, that the term "nominal horse power," should be abolished; and that engines should in future be designated by the cubic contents of their steam cylinders, jointly with their nominal consumption of a standard description of fuel during a given period of one hour. A table might be drawn up giving this nominal consumption in terms of the grate and the heating surface, and should be accompanied by rules and directions for ensuring the uniform measurement of the grate and the heating surface. This system, it was contended, would be more in accordance with the present practice of construction, and would enable the relative size and power of engines to be more accurately estimated than by the present method.—*Proc. Inst. Civ. Eng., April 8, 1851.*

It was admitted that it would be very desirable to fix the nomenclature of the power of engines, for though it was well known that James Watt did really take as his standard, what he found to be actually performed by a powerful horse drawing a weight over a pulley,—viz: the equivalent of 33,000 lbs. raised one foot high in a minute—yet commercially it had gradually become a custom among the manufacturers to give a surplus of power, ostensibly as an allowance for the friction and deficiencies of the machine, so that now, the mere statement of the nominal horse power had no definite meaning. It was, however, contended that the standard of 33,000 lbs. should be retained; and that, supposing the workmanship to be equally good in two engines, it was only necessary to compare the areas of the cylinders, the effective pressure of steam on the piston, and the speed of the piston, to determine their relative power. This was in fact, shown by the indicator, an instrument the value of which was now universally admitted, and which, when skilfully used, did really give a true representation of the power of the engine. It was the universal custom of Boulton and Watt to calculate the power exerted by an engine by the speed of the piston, together with the average pressure of the steam as shown by the indicator; and although much vagueness and uncertainty had latterly been introduced into the subject, this was rather to be attributed to the assumption of arbitrary quantities to represent those results, than to any defect in Watt's standard horse-power, which definitely expressed both the measure of power and the space through which it acted. The proposed standard of comparison of the quantity of water evaporated in a given time, by a given amount of fuel, or the combustion of a given quantity of fuel in a given time, were shown to be of no value; as then not only the generation of the steam, but the administration of it, must be considered, and these were points merely tending to complicate the question. For pumping engines in Cornwall the term horse-power was almost unknown, engines being sold to raise a given quantity of water,

which was a standard easily reducible to that of other districts, where 33,000 lbs. was assumed to be the actual power of a horse.—*Proc. Inst. Civ. Eng., April 15, 1851.*

#### Pennsylvania.

*Sunbury and Erie Railroad.*—A convention of the friends of the proposed Sunbury and Erie Railroad was held in Philadelphia on the 25th ult.—John B. Myers was appointed to preside, and a large number of Vice Presidents and Secretaries were also appointed. The Bulletin says—

Hugh Bellas, Esq., having been called on, made a brief and able speech in favor of the Sunbury and Erie Railroad. Mr. Edward R. Biddle also made an able speech, opening the importance of the lake trade, and after referring to the enterprise of Boston in securing this trade, showed conclusively the advantages that Philadelphia would have by the completion of the Sunbury and Erie Railroad—having the shortest route to the Lakes and the best harbor on the Lake Erie. A letter was read from Edward Miller, Esq., Engineer of the Western Division of the Pennsylvania Railroad, accompanying two reports made by him on the Sunbury and Erie Surveys, with a map of the region traversed. He speaks of the entire feasibility of the project, and of the great superiority of the route over all others. The progress made in engineering science since the reports were made gives reason to believe that the route may be still further improved. Mr. Miller regretted that his engagements would prevent his attendance at the Convention. A speech was made also by Hon. Thomas Struthers, of Warren, who, among other interesting facts, stated that the people along the line of the proposed road having been consulted, it was believed that they would subscribe \$1,200,000 to its stock. Mr. Chas. E. Penrose also addressed the meeting in a very interesting speech. The Convention then adjourned till the afternoon.

At the evening session, Judge Woodward, chairman of the committee on resolutions, offered the following, which were unanimously adopted:

1. Resolved, That Pennsylvania, endowed, as she is, with varied and unbounded mineral resources, ranking as she now does, with the first agricultural States of the Union, and possessing, in Pittsburgh, the key to the trade of the Valley of the Mississippi, in Erie, the best and safest harbor on the Lakes, and in Philadelphia, the second commercial and first manufacturing city of the country, is destined now to a position in the front rank of commercial communities.

2. Resolved, That the present wants of the State demand the immediate connection of Philadelphia and Erie by a continuous railroad, which will penetrate the now neglected wilderness, but rich, arable and mineral regions of the State.

3. Resolved, That subscriptions, to the amount of one million of dollars, to the stock of the Sunbury and Erie Railroad having already been pledged by the people of the counties through which the road will pass, it is hoped that the citizens of Philadelphia will make such addition thereto as will secure the immediate commencement and early completion of the work.

4. Resolved, That the extensive system of railroads constructed, or about being completed, by the States of Ohio, Michigan, Indiana and Illinois, on which a sum of over forty millions is being expended, verging towards the unrivalled harbor of Erie, demands that this State should be prepared at the very earliest practicable moment to open for public use this, the shortest and most direct avenue through the heart of Pennsylvania, from that port to the city of Philadelphia.

5. Resolved, That we believe that the prosperity of the agricultural, manufacturing, mining and commercial interests of the State will be immensely promoted by the early completion of the Sunbury and Erie Railroad, the most direct route from the lakes to the seaboard cities—and that we therefore urge our citizens to subscribe promptly and liberally to the Sunbury and Erie Railroad stock.

6. Resolved, That the commerce and rapidly growing business of the several lines of Railroad and Canal, by which New York and Boston are connected with the Lakes, is a sufficient guarantee of the profitableness of this road as an investment.

7. Resolved, That no public work could now be projected that would increase so vastly the value of the taxable property of our citizens, and the revenues of the State as the Sunbury and Erie Railroad.

8. Resolved, That a committee of — be appointed by the Chairman of the Convention to prepare and publish an Address to the public, in aid of the enterprise in which we are engaged.

Judge W. supported the resolutions in an able speech. He was followed by Judge Kelly, who eloquently advocated the policy of building the road at once. In the course of his remarks he recited the following interesting facts, to wit:—That the city and county of Erie has engaged to subscribe \$500,000, Warren county \$500,000, Lycoming \$300,000, Elk \$100,000. After speeches from several other gentlemen the Convention adjourned.

**York and Cumberland Railroad.**—At the election held in York on the 23d ult. the following persons were chosen President and Directors of the above company for the ensuing year:

President—Eli Lewis, Esq.

Directors—John P. Kennedy, Adam Denmead, Patrick H. Sullivan, Samuel Small, Jacob Kirk, Jr., and John Hough, Esq'srs.

It will be observed by the foregoing that the old Board have been re-elected, with the exception of George M. Gill and William B. Duval, Esq'srs., who declined re-election.

#### New Machine for Blooming Iron.

The purpose of this machine, which has been invented and patented by Mr. J. Brown, is to perform the process of blooming the iron from the puddling furnace, which is usually done by hammering, and in some instance, by squeezing; the object being to squeeze out the cinder from the puddled ball, and to compress the iron into a form ready for rolling into a bar, which is done at the same heat. The machine consists of three large eccentric rolls, placed horizontally in strong holsters, the centres of the rolls being arranged in a triangular position, and the bottom roll nearly central between the top rolls. These all rotate in the same direction, and are driven by a centre pinion working into three pinions of equal size, fixed in the roll spindles. In the present machine the driving power is applied direct to the bottom roll, by means of a large wheel, for the convenience of carrying the main shaft under the floor, but it could be applied to the centre pinions, if preferred. The rolls are cast solid with their journals like ordinary rolls and are driven in the usual manner by coupling boxes and spindles. The roll faces are sixteen inches long, and the bottom roll has strong flanges at each end, eight inches deep, between which the two upper rolls work.

The object of these flanges is to upset or compress the ends of the bloom as the iron in the operation becomes elongated, and the ends are forced against the flanges, which makes them square and sound. The top roll has a large hollow, in which the puddled ball is placed by the puddler, and this roll carries it around and drops it into the space between the three rolls, this space being at the moment at its largest capacity. The three projecting points of the rolls, immediately impinge upon the ball and compress it forcibly on three sides, and giving a rotating motion to the ball, at the same time they have a powerful kneading action upon the iron, squeezing out the cinder very effectually, which flows freely away down each side of the bottom roll. The space between the rolls gradually contracts from the eccentric or spiral form of the rolls, thereby maintaining an increasing compression upon the iron on all sides and on the ends, until it is liberated by the points simultaneously passing the bloom, which falls down and is discharged by the machine at the same moment that another ball is dropped in at the top of the machine. The projecting teeth on the surface of the rolls assist this action, by seizing hold of the iron, and kneading into it as it rotates, and these teeth gradually diminish in projection, the last portion of each roll being plain, and the bloom is consequently turned out in a smooth compact form. The space between the flanges of the bottom roll is widened for a short distance beyond the point, for the purpose of allow-

ing the bloom to drop out readily and admitting the fresh ball. The time occupied in producing the bloom is 12 seconds; by the ordinary plan it is from 50 to 80 seconds.

Considerable difference of opinion was expressed as to the relative value of iron bloomed by the machine and the hammer, some of the members contending that the machine lapped the cinder up, while Mr. Cowper and others, who had seen the machine at work, held the contrary was the case. Mr. Slate said that there could be no doubt that the machine was far superior to the ordinary squeezers. Mr. Eaton Hodgkinson said that he had entered the room with strong prejudices against the machine, but he was bound to say that the samples of iron produced had removed them in some degree. Still he doubted if the iron produced was superior to that made by the hammer. The Chair remarked that it was desirable that the relative qualities of the iron, and the cost of the different processes, should be accurately ascertained, and he suggested that Mr. Beasley should make further experiments and report to a subsequent meeting.—*Birmingham Journal.*

#### Mad River and Lake Erie Railroad.

In connection with some very agreeable and pleasant friends, we took a hasty trip up this "father of western railways," on Saturday last to Sandusky city and were "quite surprised" to find the improvements upon it moving onward at so rapid and steady a rate. Companies of workmen are advancing with the work, at five different points, and have the T rail laid for sundry miles at each of the points upon the line. This makes an agreeable variety in the ride. From Urbana northward there are some six miles permanently laid with this rail; a considerable distance, also, between Huntsville and Kenton; some between Kenton and Carey; nearly the whole distance between Carey and Tiffin, and from Sandusky city southward, for a long stretch, the work is progressing. The rail being laid is of the best quality, and is coming on as fast as it can be clinched down. There has been so little said of late about this work, that we had no idea there was so much accomplished.

There is one fact about this improvement which will render this road more agreeable for travel than, perhaps, all others, when finished: and that is this: the grading for the present structure is nearly all done by reducing the old bed of the road. This will give to the track a permanency it could not otherwise have, as the earth deposited in "fills" many years ago to make the levels, has undergone a settlement of so firm a character, that it will be next to impossible for the railing to become uneven.—This signal advantage this road will have over roads made of new earth, which are consequently, subject to more or less early unevenness. When the surface of the track upon a newly graded road becomes once distorted from its given exactness, it is so difficult of repair, that the warping it is driven into, is, for the most part, ever after maintained.

From the specimens of reconstruction we witnessed upon this road, we are borne out in the opinion that this line, when completed, will not be surpassed, if equalled, by any road for solidity and smoothness—the absence of jarring and jousting, as the train pass over it.

William Durbin, jr., of Sandusky city, has charge of the northern division, and Mr. Brown, of this city, of the southern division of the road. They are both highly accomplished engineers, and are driving energetic men.

In a conversation with E. F. Osborne, Esq., the excellent Superintendent, we learned that by the first day of October next there will be such distance of T rail laid on this road, as will, with the line from Cincinnati to Dayton, measure half the distance from Cincinnati to Sandusky city, with good T railroad; and from that time forward the distances of flat rail will be continually diminishing, as the work of reconstruction progresses; so that not many months hence, the whole length of the road will be fraught with this improved material. The whole distance from Cincinnati to Sandusky is two hundred and fourteen miles. Of this distance the Mad river road will have, at that time (Oct. 1st,) some over fifty miles linked with this

rail, while the road from Cincinnati, through Hamilton to Dayton, will have the distance of fifty-six miles, of all T rail; making one hundred and seven miles T rail travel upon this route. We pen these plain matters of fact that our readers may know what is in progress.—*Springfield Gazette.*

#### Governor Hunt's Letter.

*The advantage of sending our products by the Northern instead of the New Orleans route.*

The Louisville Courier of the 16th ult. says:—

After writing the article that appeared in yesterday's Courier, inviting the attention of our business men to the propriety of taking some formal and energetic action in demonstrating to the planting interest of this whole section of country, how much more it is to their advantage to form business connections with Louisville and from thence send their tobacco, cotton, hemp, &c. by the Northern or Lake route, we received the following letter from Gov. Hunt, of New York, and which, by his kind permission, we are permitted to lay before the public. It is in the same liberal spirit which the Governor manifested in the personal interviews we had with him, and echoes but the feelings of all persons, whether official or private, who in any way were interested in any of the artificial channels of communication through the great State of New York, by which the Atlantic seaboard is reached with the products from the West and South-west. It may be proper to say here, that we addressed a note to Gov. Hunt asking, if not inconsistent with his views of propriety, that he would make a reply that might be used for the information of the commercial and agricultural interests in this section of the Union. It was to that note he made the following answer:

ALBANY, N. Y. Sept. 6, 1851.

Dear Sir:—Your letter of the 29th ult. came here during my absence in the Northern counties.

Your views in regard to the commercial relation between New York and Kentucky, and the mutual advantages to result from a more direct trade through the Western lakes and the canals of this State are eminently wise and sagacious. Our interests are reciprocal, and I consider it of the utmost importance that perfect concert and co-operation should be established between us.

We desire to present the strongest inducements to the people of the South-west to adopt the shortest and cheapest line of communication with the Atlantic markets. We are prepared to make it decidedly advantageous for you to send your surplus cotton, tobacco, hemp and provisions to the seaboard through our canals. There can be no cause for doubting that our Canal Board will adopt a liberal and enlightened policy on this subject, making such discriminations as will prove satisfactory to your merchants and producers. Our interests in this regard are in harmony with the sentiments of our people. We desire to create "a more perfect union," and strengthen the political ties which connect us with our brethren in the valley of the Ohio and Mississippi, by cultivating a more intimate commercial intercourse, on the grounds of just reciprocity.

I remain, with great regard, yours truly,  
WASHINGTON HUNT.

This letter furnishes a basis upon which not only our own merchants, but those of our neighboring city, Cincinnati, can at once enter upon this great project of laying the foundation of trebling the carrying trade by way of the North. Whatever benefits we derive by opening this new and prolific trade, Ohio must share equally with us, as her public works form one of the links in this great chain of inland communication with the seaboard. May we not, therefore, look for as favorable action from the canal board of Ohio, and of the railroad companies from Cincinnati to Cleveland, as Gov. Hunt assures us will be made on the part of the Empire State? The same action is necessary on the part of Ohio, as is promised by the State of New York, to secure complete success, for it would be unreasonable to expect tolls and transportation to be reduced in New York and by the Lake lines of steamers, unless corresponding reductions are made by the remaining links making up the line of communication commencing with the steamers between this city and Cincinnati. It was with



the view of accomplishing this, and from a thorough conviction that it can be done, that suggested the proposition we made yesterday, of some formal and authorized action on the part of our most substantial and deeply interested commercial men. The labor will have to be performed by some two or three persons, in the nature of a committee, but the existence of that committee, to have the desired effect, must receive the sanction and countenance, as well as emanate from the only proper source, our commercial community. Will that action be taken? Shall such committee or other authorized medium of communication be created? Shall the commercial importance of Louisville, through this simple project, be placed upon a basis that will in a few years leave her without a rival on either bank of the Ohio? These are inquiries which can alone be answered by those more directly interested in the subject than ourselves—the merchants of this city.

#### Rome and Watertown Railroad Jubilee.

The completion of this road to Watertown was celebrated in that village on the 24th ult. A large number of invited guests, from different parts of the State, assembled at that place, and a procession was formed, in which a number of military and fire companies, as well as citizens and strangers joined. The procession moved through the principal streets, and halted in the public square, where the assembled multitude were addressed by Hon. J. Clarke, who gave a succinct and interesting history of the rise and progress of the enterprise. The road was chartered in 1832. Nothing, however, was then done, and the charter was twice renewed—in 1836 and in 1845. It was not until 1848 that any thing efficient was done. During that year Hon. O. HUNGERFORD and Major KIRBY (both recently deceased) took hold of the work and after great labor, they succeeded in securing the necessary subscriptions—rather, it was supposed, as gifts than as profitable investments. But he would not admit that the road would not pay handsomely. It cost but \$15,000 a mile—the cheapest road in the Union; and yet it is a thoroughly built and substantial road. Mr. C. dwelt at length upon the advantages of the work, and the vast trade which it would attract from Canada and elsewhere.

In the afternoon there was a grand dinner with toasts and speeches. The President of the village presided, and the following regular toasts were drunk:—

1. The opening of the Watertown and Rome Railroad. A day most auspicious to the prosperity of our County and Town. Long it be remembered as the commencement of a new era of enterprise, wealth, and prosperity.
2. Our Canadian neighbors, soon to be annexed by ties of oak and bands of iron, too strong, we trust, to be ever sundered. May our relations ever continue mutually agreeable and profitable.
3. The citizens of the village of Rome. Our efficient and zealous co-laborers in the important enterprise we celebrate. These strong bands of iron are an expressive type of the tenacity and durability of the friendship and good feeling of Watertown towards them.
4. The city of Utica. Her enterprise and energy command our admiration. She is too generous to be jealous if we shall seek to emulate her in these attributes of her prosperity.
5. The city of Albany, the honored Capital of the Empire State. Her generous and liberal citizens bestow with a bounteous hand their wealth to promote every important public enterprise. She cannot fail to find her account in the construction of the Rome and Watertown railroad.

The toasts were responded to in short and pertinent addresses from several of the distinguished guests; and a number of volunteer toasts were also drunk. In the evening there was a festival and ball, graced by the presence of about 300 ladies.

The occasion is described as one of unalloyed pleasure.

We congratulate the enterprising citizens of Jefferson county on the successful completion of this important work to this point, and we trust that the communication with the Lakes and Canada may be speedily consummated by the completion of the route to Cape Vincent.

#### New Jersey Iron Manufacture.

This State, in common with the others extensively engaged in this business, has been laboring under almost insupportable burthens, arising from a want of an adequate tariff of protection to this important branch of American industry. In the county of Morris, and small portions of Passaic and Sussex, immediately adjoining, there are estimated to be 83 forges, capable in the aggregate of producing annually 12,500 tons of refined iron, besides large quantities of pig iron, the latter of which is sent into other States to be wrought into various articles in daily use.

These forges alone, to say nothing of the miners and other employees, if they were at full work, would occupy constantly, 1500 men, and if the forgesmen were adequately compensated, the amount received by them in this comparatively small iron region, would reach the sum of about \$1,000,000. At this time it is computed that only about one-fourth the above number of forges are in blast, and the proprietors of these are working them from \$10 to \$15 less than would be a fair remuneration for the labor employed, without including the necessary outlay of capital. Those who do continue the business, do so, because they have farms connected with their forges, and by continuing to make iron they find a home market for their agricultural products; others, perhaps, are induced to continue in consequence of being able to make some peculiar kind of iron for which they find a market, though it may be at a very reduced price.

In the county of Morris there are also five extensive rolling mills, which have all been obliged to change their occupations—some to nails, spikes and rivets, in consequence of inadequate protection to merchant iron. And added to these are manufacturing of bar steel, which have been obliged to discontinue altogether. To show the immense foreign competition in this business, there were imported the first six months of 1851, 147,209 tons; excess this year, 12,604 tons. Of the amount imported in the last half year 40,003 tons were railroad iron, 26,701 tons bar, 25,346 do. pig, 5,229 do. English sheet and boiler, 5,098 do. Swedes and Russia, 5,094 do. hoops and rods.

The hopes of the iron men are now dependent on a reduction of wages to the standard of competing countries, which the workmen must submit to; or, by forcing upon Congress the imperious necessity of a reform in the tariff upon this article, until they shall submit to a just revision.—*Newark, N. J., Adv.*

#### Maine.

*Androscoggin and Kennebec Railroad.*—It gives us pleasure to announce that the contract with the Atlantic and St. Lawrence railroad to do the connecting business was yesterday concluded by our Directors, on the terms proposed by the Committee of the Stockholders, and reported by that Committee at the last annual meeting.—*Waterville Mail, 18th ult.*

The basis of this arrangement is upon the pro rata principle, the Atlantic and St. Lawrence receiving one-third of the gross receipts, and the Androscoggin and Kennebec two-thirds, being in proportion to the distance run over the respective Roads. A further allowance is made to the Androscoggin and Kennebec for the use of cars, of one-half a cent per mile for each passenger and every ton of freight, provided the proportion belonging to the Atlantic and St. Lawrence shall amount to \$40,000 per annum. In other words, the arrangement amounts to a virtual guarantee on the part of the Androscoggin and Kennebec Railroad, that a third of the connecting business shall amount to \$40,000, and in the event it does, or exceeds that figure, then the division shall be made upon the above basis.

Edwin Noyes, Esq., has been appointed Super-

intendent of the Androscoggin and Kennebec Railroad, in place of Gen. Simonds, resigned. Gen. S. has gone, or is about to go to California. Mr. Bodge left New York for that region on Saturday last.—*Lawiston Journal.*

#### Mexico.

*The Tehuantepec Affair.*—By the Robert Spedden we have late dates from Mexico—from Vera Cruz to the 23d, and from the city of Mexico to the 19th ult. The most important item of news we find in our files, is the general terror which pervades the country, on account of the apprehended blockade by the English fleet, for the nonpayment of the bonds held by English subjects.

In reference to the Tehuantepec affair, we learn that the Mexicans are coming to their senses, and begin to view in a proper light, the consequences of their violence and breach of faith in the seizure of the property of the Company. The barges which were sent down to Minatitlan having been seized by the Mexican commandant, Captains Thompson and Whitney proceeded to Vera Cruz, where they were met by the Governor of that Department, with the request to return, as orders would be given for the release of these vessels. Our consular agent replied that such order could be sent to the agent of the Company, Mr. Sidle, who would receive back the barges. On this subject we shall have something further to say in to-morrow's edition.—*N. O. Delta.*

#### Philadelphia and the West.

A late number of the Philadelphia North American contains an article on the subject of the progress of the railroad communications between Philadelphia and the west, in which the speedy completion of the Pennsylvania railroad is strongly urged, in order to establish this communication before the current of trade shall become permanently turned in another direction. The writer remarks that a railroad to be efficient, must be continuous; it must not be patched out with canal-packets. The traveller measures his journey by time, not by miles; and in order to command most of the travel, the route through Pennsylvania must not only be the shortest, but the quickest. The article concludes as follows:

"How then can we connect with the railroad system of Ohio in the shortest time, and at the smallest cost? The answer is, by the Ohio and Pennsylvania Railroad, which was chartered by both the States for this express purpose. From Pittsburgh to New Brighton, twenty-eight miles, the road was opened in July, and has been in successful use ever since, averaging about three hundred and sixty passengers per day. From Pittsburgh to Beaver, twenty-five miles, it was opened for public use in fifteen months from the time when the first contracts were let. It does not cross the Ohio river; it is a first class railroad, easily kept in good order; and it is now run at the rate of twenty-five miles an hour. At Alliance, fifty-three miles from New Brighton, the road will connect with another, now in use, to Cleveland, making the whole distance from Pittsburgh to Cleveland one hundred and thirty-eight miles, which will be run in less than six hours. It is the determination of the officers of the Ohio and Pennsylvania Railroad that this shall be done in December of the present year; thus bringing Cincinnati and Pittsburgh within nineteen hours of each other. A large body of experienced track layers are now at work, laying the track on the fifty-three miles, which is the link in the long chain of 394 miles of first-class railroads, connecting the four cities of Pittsburgh, Cleveland, Columbus and Cincinnati. From Cleveland by Pittsburgh to Philadelphia, the distance is one hundred and twenty miles less than from the same point by Dunkirk to New York.

In about ninety days, the work is to be done; and then, the lake being closed, the city of Philadelphia and the Pennsylvania Railroad Company will behold a rush of western travel, which will teach many people a lesson in geography that they have been slow to learn. They will see that it is by tapping the Ohio railroads that we are to get the western travel; and not by stopping our efforts

within our own State, whether the terminus we fix on be either Pittsburgh or Erie."

## American Railroad Journal.

Saturday, October 4, 1851.

Mr. Poor is still prevented by illness from attending to his accustomed duties.

### St. Andrews and Quebec Railroad.

We learn from JOHN WILSON, Esq., President of the St. Andrews and Quebec Railroad Company, that the entire line of that road, from St. Andrews to Woodstock, 80 miles, is under contract; on such terms as will secure its completion. The first 10 miles is nearly finished, and will be ready for running this fall. The balance of the road, 70 miles, has been let to Shaw and Co., a party of English contractors, at very favorable prices. There is a new race of contractors coming into the field as competitors with Yankee enterprise. There are sets of rich capitalists now associated together in England, who are turning their attention to this continent, as a better field for enterprise than that of Europe, now that the English Railroads are built. We shall be glad to see men of this stamp engaged on more of our own roads.

### Canada.

**Great Western Railroad.**—The numerous friends of Roswell G. Benedict, Esq., will be glad to learn that he has received the appointment of chief engineer of this great work. Mr. B. has the capacity and energy necessary for the important position to which he has been called. The contract has been made for all the rails required, with a house in Wales. A portion of them will be out this fall.

**St. Lawrence and Atlantic Railroad.**—The Sherbrooke Gazette states that the railroad from Montreal will be opened to Richmond, near there, in the early part of this month, when a public demonstration is to be made, at which his excellency the governor general has signified his intention of being present and uniting in the celebration of an event the most important to that section of the province of any which has ever occurred. As soon as the cars commence running to Shipton, passengers may leave Sherbrooke in the morning, take the cars, reach Montreal about noon, transact business, and return to Sherbrooke early next morning; or by extending the time to 48 hours, may go to New York or Boston and return. The Gazette thinks that his excellency should be invited to extend his visit to Sherbrooke, and were he to proceed still farther south, through Stanstead county, and take a trip through Lake Magog, he would be enchanted with that portion of her majesty's dominions, and would carry away a high opinion of the character of the eastern townships of Canada.

### Georgia.

**The Milledgeville Railroad.**—The Southern Recorder of the 18th ult. says:—"We are happy to be authorized to say, that the Cars on this road, from Milledgeville to Gordon will be running by the 25th of October, in time to carry to Macon all who may desire to attend the Agricultural Fair, from this and the surrounding country."

### New-York.

**Hudson River Railroad.**—This road is at length completed. Grand trains have passed over the entire road this week, and the regular passenger trains will probably commence their trips on Monday next. A grand jubilee may be expected soon.

### Railroad Iron.

THE undersigned are prepared to enter into contracts now at specific prices, to deliver Railroad Iron during the coming Winter and Spring, free on board at the shipping ports in Wales, or at ports in the United States.

CHOUTEAU, MERLE & SANFORD,  
Sept. 30, 1851. No. 51 New st.

### Railroad Iron.

THE undersigned offer for sale 1000 tons Railroad Iron, now ready for delivery from ship "Niobe."

CHOUTEAU, MERLE & SANFORD,  
Oct. 1, 1851. 51 New st.

### Saunders, Samuel,

Civil Engineer, Architect and Surveyor,  
Charleston, Kanawha county, Va.

### Maryland.

**Lonaconing Railroad.**—We learn from the Miner's Journal that the work on this road has been commenced by W. H. Smith, Esq., Engineer and Superintendent of the George's Creek Coal and Iron Co., and will be prosecuted with energy to its completion. Mr. S. has commenced operations at Piedmont, and has about 40 hands at work building two bridges, one over the Potomac. In a few days he will increase his force to over 100 hands.

### North Carolina.

**Raleigh and Gaston Railroad.**—The following are the officers of this Co. for the ensuing year:—Geo. W. Mordecai, of Raleigh, President, W. W. Vass, " " Treasurer. H. D. Bird, of Petersburg, Engineer and General Superintendent.

The President declines receiving compensation for his services; the Treasurer's salary is \$1,000 per annum, and the Engineer's is fixed at \$3,000. Mr. Bird, the Engineer, is also the President of the Petersburg Road.

### Indiana.

The "Indianapolis Locomotive" says that permission has been granted the Madison company to run on the Terre Haute road, after they get it completed as far west as Plainfield, fifteen miles from that city. The Madison company will get all the proceeds, but will be controlled by the Terre Haute company, who will devote all their time and attention to completing the road through. This arrangement only lasts until the road is completed, when the Terre Haute company will put on their own cars and engines, which are now contracted for, and many of them ready for use.

**Peru and Indianapolis Railroad.**—The following were elected directors of the above road for the ensuing year, at the late meeting of stockholders in Noblesville:—James M. Defrees, W. J. Holman, George L. Dart, C. D. Murray, P. Hersleb, John Green, S. Dale, W. W. Conner, D. R. Brown and John Burk.

The same officers were continued, viz:

John Burk, president; J. J. Cox, secretary; W. W. Wright, treasurer; W. J. Holman, engineer.

### Ohio.

**Central Railroad.**—The Zanesville Courier says that the following gentlemen have been appointed a committee to make the arrangements necessary for the railroad barbecue, to be held on the line of the Central Ohio railroad, on the 11th instant:—Col. James Raguett, John M. James, Col. John A. Blair, Wm. Ruth, Jacob Glessner, E. T. Cox, H. Baird, Jacob Oshe, George A. Jones, James Darlington, Mark Loudon and Joseph Galigher.

Messrs. W. Dennison, Jr., of Columbus, Ex-Governor Shannon, Hon. W. Medill and Hon. F.

Corwin, President of the Cincinnati, Wilmington and Zanesville railroad company, have been invited, and are expected to be present to address the assemblage.

### Stock and Money Market.

The Money market shows a feeling of gradual amelioration. The influence of the uncurrent money panic has passed away and stocks have resumed their previously improving tendency. No Gold is going this week to Europe, and the declining rates of Sterling Exchange indicate the probability that little or none will go next week. Sterling is offering at 9½ and 10¼ per cent. for the best bills, and the supply is likely to be increased largely from the South before the next steamer sails. The Brokers have generally returned to the discount of our State money; for the present, all uncurrent money is bought ¼ and 1 per cent. higher than usual quotations. In bonds of new works there is still little or nothing doing.

The exports for September, 1851, are as follows:

Domestic Merchandise.....	\$2,593,986
Foreign Merchandise, (free).....	134,271
Foreign Merchandise, (dutiable).....	316,047
Specie.....	3,490,142

The Receipts of the Erie Railroad for the month of September, 1851, were as follows:

From Passengers and Mail.....	\$192,255 60
From Freight.....	114,633 36

Total.....	\$306,888 96
Same month in 1850.....	150,017 57

Increase.....\$156,871 39

The following is a statement of the export of breadstuffs to Great Britain and Ireland, in the month of September:

	1851.	1850.
Flour, bbls.....	111,242	144,521
Meal, ..	1,180	nil.
Wheat, bush.....	178,682	50,681
Corn, ..	36,027	41,239

Below we give the operations of the United States Mint at Philadelphia for the month of September:

	GOLD.	Pieces.	Amount.
Double Eagles.....	162,922		\$3,258,440 00
Eagles.....	13,844		138,440 00
Half Eagles.....	31,755		158,875 00
Quarter Eagles.....	80,944		202,360 00
Gold Dollars.....	329,308		329,308 00
Total.....	618,793		\$4,078,423 00
	SILVER.	Pieces.	Amount.
Half Dollars.....	11,400		7,200 00
Quarter Dollars.....	62,000		15,500 00
Dimes.....	31,000		5,000 00
Three Cent Pieces....	615,300		18,459 00
Total.....	1,441,493		\$4,136,682 00
	COPPER.	Pieces.	Amount.
Cents.....	535,271		5,352 71
Total.....	1,976,764		\$4,142,034 71

Gold bullion deposited for coinage from 1st to 30th September, 1851, inclusive:

From California.....	\$3,960,500
Other sources.....	75,000

Total.....\$4,035,400

Silver bullion deposited in same time.. \$8,700

**Vermont and Massachusetts Railroad.**—Comparative receipts for eight months in three years:—

	1849	1850	1851
January.....	8,031 80	10,474 50	13,839 89
February.....	8,679 14	11,281 49	12,680 80
March.....	11,047 20	11,959 97	15,096 88
April.....	13,368 40	14,593 66	17,996 72
May.....	12,518 37	14,142 38	17,348 35
June.....	11,792 51	13,599 75	14,948 44
July.....	11,996 36	16,106 27	18,645 30
August.....	14,767 61	19,118 56	



**Morris Canal.**—The gross receipts for the week ending Sept. 20, were.....\$5,240 13  
Allowance for drawbacks..... 613 63

Corresponding week last year.....\$4,626 50  
Increase.....\$3,359 96

The Oswego Times furnishes the following comparative statement of the shipments by Canal during the 3d week in September, for two seasons:

	1850.	1851.
Flour.....bbls-	23,374	20,662
Wheat.....bush-	45,423	54,912
Corn.....	888	27,757
Lumber.....ft-	3,049,424	3,468,710

**Vermont Central Railroad.**—The earnings of this Railroad for August, 1851, have been..\$55,682 00  
For August, 1851, 22 days  
freshet.....\$24,749 96  
Add same proportion for 5 day 5,625 00

Would have been.....\$30,374 96

Increase over last year.....\$25,307 13  
Or 83 per cent. As compared with July, 1851, the increase is \$4,469 63.

On the last quarterly return day of the City Banks, the amount of specie held jointly by them was counted, and ascertained to be as follows:

1851.	In Banks.	In Sub-Treasury.	Total.
Sept. 25.....	5,865,000	4,067,000	9,932,000
Sept. 8.....	7,113,000	3,430,000	10,543,000
Aug. 25.....	6,904,505	3,400,000	10,304,505
July 23.....	7,843,957	2,051,000	9,894,957
July 1.....	8,523,574	2,294,877	10,808,151
June 16.....	8,733,000	2,652,000	11,385,000
June 2.....	9,731,000	2,307,000	12,038,000
May 13.....	7,967,000	4,400,000	12,367,000
April 10.....	7,218,000	4,287,000	11,505,000
March 3.....	8,053,000	3,803,000	11,856,000

The National Intelligencer says:—"The uncoined bullion on hand at the Mint, on the 20th ult., was: Belonging to the bullion fund assayed 5,236,623 43  
Unassayed..... 51,600 00

5,288,223 43

All deposits of gold previous to the 20th September had been paid to the depositors, and all mint certificates are redeemed on presentation immediately after being issued."

The Evening Journal gives the annexed statement of the quantity of flour, wheat, corn and barley, left at tide water during the 4th week in September in the years 1850 and 1851, as follows:

	Flour.	Wheat.	Corn.	Barley.
	bbls.	bush.	bush.	bush.
1850.....	159,547	169,593	114,560	152,643
1851.....	105,663	156,993	236,785	91,304

Dec....53,884 12,600 Inc. 122,225 de.61,239

The aggregate quantity of the same articles left at tide water from the commencement of navigation to the 30th Sept., inclusive, during the years 1850 and 1851, is as follows:

	Flour.	Wheat.	Corn.	Barley.
	bbls.	bush.	bush.	bush.
1850.....	1,651,045	1,232,663	2,857,152	613,230
1851.....	1,198,385	1,796,524	6,186,371	373,483

Inc....547,330 563,861 3,329,219 dec.239,747

The aggregate quantity of the same articles left at tide water from the commencement of navigation to the 30th Sept., inclusive, during the years 1849 and 1851, is as follows:

	Flour.	Wheat.	Corn.	Barley.
	bbls.	bush.	bush.	bush.
1849.....	1,729,161	1,192,666	4,151,523	193,871
1851.....	2,198,385	1,796,524	6,186,371	373,483

Increase. 469,224 603,858 2,034,848 179,612

By reducing the wheat to flour, the quantity of the latter left at tide water this year, compared with the corresponding period of last year, shows an increase of 660,112 bbls. of flour.

**Erie Canal.**—The amount received for tolls on all the New York State canals during the 3d week in September, is.....\$127,184 63  
Same period in 1850..... 132,812 61

Decrease in 1851.....\$5,627 98

The aggregate amount received for tolls from the commencement of navigation to the 22d September inclusive, is.....\$2,275,685 99  
Same period in 1850..... 2,025,127 37

Increase in 1851.....\$250,758 62

**Boston, Concord and Montreal Railroad.**—The following statement gives the receipts of the Boston, Concord and Montreal Railroad, from February 1st last, to Sept. 1, as compared with the corresponding months of the previous year:

	1850.	1851.	Increase.
Gross receipts	1850.	1851.	Increase.
For February..	\$8,778 33	\$9,279 56	\$501 23
For March.....	9,976 67	11,150 10	1,173 43
For April.....	10,396 65	12,336 06	1,939 41
For May.....	9,948 79	11,756 92	1,808 14
For June.....	10,715 94	12,718 58	2,002 64
For July.....	13,245 18	16,579 77	3,334 59
For August.....	16,113 35	18,249 81	2,136 46

Total....\$79,174 90 \$92,070 80 \$12,895 90

It will be noticed by the above that the business of this promising Road is increasing handsomely.

## Railway Share & Stock List;

CORRECTED WEEKLY FOR THE

AMERICAN RAILROAD JOURNAL.

NEW YORK OCTOBER 4, 1851.

## GOVERNMENT AND STATE SECURITIES.

U. S. 5's, 1853.....	101½
U. S. 6's, 1856.....	103½
U. S. 6's, 1862.....	110
U. S. 6's, 1862—coupon.....	114½
U. S. 6's, 1867.....	115½
U. S. 6's, 1868.....	116½
U. S. 6's, 1868—coupon.....	122½
Land Warrants.....	140a145
Arkansas 6's.....	52a53
Alabama 5's.....	91a92
Indiana 5's.....	79
Illinois 6's, 1870.....	65a68
Kentucky 6's, 1871.....	105a106
Massachusetts sterling 5's.....	105a106
Massachusetts 5's, 1859.....	100½
Maine 6's, 1855.....	103
Maryland 6's.....	102½
Michigan.....	—
Mississippi.....	—
New York 6's, 1865.....	117a118
Ohio 6's, 1860.....	106½
Pennsylvania 5's.....	91

## RAILROAD BONDS.

Atlantic and St. Lawrence, 6 per cent.....	85
Baltimore and Ohio, 1867.....	94½
Boston and Providence 6's, 1855.....	101
Boston and Worcester 6's, 1855, convertible.....	107½
Bost., Concord and Mont. 6's, 1860, mortgage.....	87½
Cheshire 6's, 1860.....	91½
Connecticut River 6's, convertible.....	98
Erie 7's, 1859.....	96
Erie 7's, 1868.....	108½
Erie income 7's.....	89
Hudson River 7's, 1853.....	101½
Michigan Central, convertible, 8's, 1856.....	104½
New York and New Haven.....	100½
Norwich and Worcester, mortgage, 1860.....	80a85
Old Colony, 1854.....	97½
Ogdensburg 7's, 1859.....	90
Portsmouth and Concord.....	80a85
Passumpsic 6's, 1859.....	94½
Rutland 7's, 1863.....	97
Reading mortgage, 1860.....	80
" " 1870.....	75
Sullivan, mortgage 6's, 1855.....	75
Vermont Central 6's, 1852.....	93
" " 6's, 1856.....	88
Vermont and Massachusetts 6's, 1855.....	85

## RAILROAD STOCKS.

[CORRECTED FOR WEDNESDAY OF EACH WEEK.]

	Oct. 1.	Sept. 24.
Albany and Schenectady.....	89½	—
Atlantic and St. Lawrence.....	60a65	—
Androscoggin and Kennebec.....	30a35	—
Boston and Maine.....	106	104½
Boston and Lowell.....	109	109
Boston and Worcester.....	100	100½
Boston and Providence.....	84½	87
Bost., Concord and Montreal.....	40	—
Baltimore and Ohio.....	71½	—
Baltimore and Susquehanna.....	36	—
Cheshire.....	53	—
Cleveland and Columbus.....	—	—
Columbus and Xenia.....	—	—
Camden and Amboy.....	—	—
Connecticut River.....	60	—
Delaware and Hudson (canal).....	—	—
Eastern.....	95	96
Erie.....	73½	75½
Fall River.....	92½	92½
Fitchburgh.....	108½	108½
Georgia.....	—	—
Georgia Central.....	—	—
Harlem.....	63	66½
Hartford and New Haven.....	124	—
Housatonic (preferred).....	52	—
Hudson River.....	68	71½
Kennebec and Portland.....	50a55	—
Little Miami.....	—	—
Long Island.....	13	14½
Mad River.....	—	—
Madison and Indianapolis.....	92	92½
Michigan Central.....	104	104
Montgomery and West Point.....	—	—
Michigan Southern.....	—	—
Manchester and Lawrence.....	97	89
Morris (canal).....	14½	15½
New York and New Haven.....	104½	106½
New Jersey.....	133	—
Northern.....	65	66½
Nashua and Lowell.....	107½	—
New Bedford and Taunton.....	111	—
Norwich and Worcester.....	45½	48½
Norfolk County.....	20	—
Ogdensburg.....	30	33½
Old Colony.....	65½	66
Passumpsic.....	80	—
Pennsylvania.....	—	—
Pittsfield and North Adams.....	95	—
Philadelphia, Wilm'gton & Balt.....	28	29
Petersburg.....	—	—
Richmond and Fredericksburg.....	—	—
Richmond and Petersburg.....	52½	54½
Reading.....	105	106
Rochester and Syracuse.....	41	45½
Rutland.....	40½	41½
Stonington.....	—	—
South Carolina.....	—	—
Syracuse and Utica.....	123½	—
Sullivan.....	25	—
Taunton Branch.....	108	—
Troy and Greenbush.....	90	—
Tonawanda.....	—	—
Utica and Schenectady.....	127½	127½
Vermont and Canada.....	97	99½
Vermont Central.....	26½	35½
Vermont and Massachusetts.....	25	27
Virginia Central.....	—	—
Western.....	102	102½
Wilmington and Raleigh.....	—	28½
York and Cumberland (Pa.).....	20	—

## Pittsburgh and Steubenville Railroad.

We are informed that the consulting engineer, W. Milnor Roberts, Esquire, and the chief engineer, David Mitchell, Jr., have made a preliminary reconnaissance of the projected Pittsburgh and Steubenville Railroad, and have found the route as favorable as was anticipated. Two corps of engineers have been organized, who will enter upon duty immediately—one commencing at Pittsburgh, the other at the river opposite Steubenville. The following gentlemen compose the engineer corps: David Mitchell, Jr., chief engineer; W. Milnor Roberts, consulting engineer; James E. Day, R. T. Mason, principal assistants; W. Graydon Smith,

P. Brady, assistants; P. Livingston, Finley Patterson, surveyors; James Seibnack, Andw. Beaumont, topographers and draftsmen.

#### Pennsylvania.

**Chartier's Creek Railroad.**—The Railroad of the Chartiers coal company (4 feet 8½ inches gauge,) begins upon the Ohio river, in a cove behind "Brunot's Island," near "McKee's Rocks," three miles below Pittsburgh, at a spacious wharf, called COAL HARBOR, and extends inland by the valley of Chartiers Creek, five miles to the nearest outcrop of the Pittsburgh coal seam at the first mines owned by the company, upon the "Irwin Tract." The flat bar rail of this railway is entirely of American iron, manufactured at the Brady's Bend Works.

On the lower part of this Railroad, from the River to Davis's Run, (near the Turnpike,) 3½ miles, the grades are either level or have a moderate descent towards the River, with easy curves horizontally.

From Davis's Run to the Mines, 1½ miles, the grade is ascending towards the Mines, at the rate of 133 to 145 feet per mile (chiefly 145,) with curves of 550 feet, minimum radius.

The level of the coal vein at the outcrop, is 346 feet above low water mark in the Ohio river, at Coal Harbor.

At the wharf, top rail is above low water... 30 feet.  
Top rail at the chute at the mine, above wharf..... 262 "  
Outcrop of coal above top rail at the chute. 54 "

Height of coal crop above low water. .... 346 "

The total ascent on the heavy grade is about 215 feet in 1½ miles, on the remainder of the road, 47 feet in 3½ miles.

At the first mines, the company have four openings and as many more at their second mines, (one mile further inland,) to which the railroad is not yet extended, though it is partly graded.

The company have at present one locomotive, and 50 large four wheeled coal cars (built by Knap & Co., of Pittsburg,) on the railroad, and 40 drift cars, (built by Marshall, Brothers,) in the mines, —the former when fully loaded, will carry about five tons each—the latter one ton.

All the coal shipped by this company will be weighed, five cars at once, on a large scale, sixty feet long, (now building by Ellicott & Abbott, at the wharf,) and sold by the ton of 2240 lbs.

The capacity of this railroad to transport coal from the mines to the river, depends on the number of empty cars the locomotive can work up the heavy grade at once. This has been ascertained by trial, to be from 15 to 20, at each ascending trip, and each empty car weighing about 2½ tons.

As each car will carry about five tons of coal, the six wheel connected locomotive, "John Thompson," now on the road, will work down each day, in six trips, about 540 tons, or 16,000 bushels.

The company own four tracts of coal land, (about 550 acres,) and the coal right on another of about 90 acres. The total investment of this company is about \$200,000.

The arrangements at the mines, at the wharf, and upon the railroad, will enable this company to transact a heavy business, and by proportionally increasing the rolling stock, their capacity to deliver coal afloat, will be very great.

The residences of the miners (in houses owned by the company,) are at the upper mines, at the village of Remington.

The large amount of coal, and the regularity of

its delivery daily at Coal Harbor by locomotive power, will furnish great facilities to a heavy steam towing line upon the river, calculated to receive and take away the coal with promptitude and regularity.

A steam ferry is about to be established between Coal Harbor and Manchester.

#### Proposed Railroad from Nashville to the Mississippi.

A reconnaissance has recently been made by Geo. H. Hazlehurst, Esq., first assistant engineer of the Nashville and Chattanooga railroad company, with a view to ascertain the practicability of a railroad from Nashville to the Mississippi river, near the northwest corner of the State of Tennessee.

The route examined, after leaving Nashville, pursues a nearly westerly course, through Davidson, Dickson and Humphreys counties, to the Tennessee river, which it crosses a few miles above Reynoldsburgh. Thence it pursues a northwesterly direction through Benton county to Paris, in Henry county; thence westerly to Dresden, in Weakley county. From the latter point, two routes were examined; the southern passing about 3½ miles south of Troy, the county seat of Obion county, and thence northwesterly passing near the borders of Reelfoot Lake, and reaches the Mississippi a short distance below the Madrid Bend. The northern route passes eight miles north of Troy, and the proposed terminus is immediately at the head of Island No. 10, some three miles south of the State line (which here touches or cuts off a small portion of the Missouri shore), and about eight miles east of the northwest corner of Tennessee.

From the northern terminus to the southern, the distance by land is eight miles, while by the river the distance is some twenty five miles. The country contained in these limits is known as the Madrid Bend, which is an exceedingly fertile body of land at a general elevation of fifteen feet above the highest rises of the Mississippi. As far as the topography of the country is concerned, the Madrid Bend possesses unsurpassed advantages for the most extensive railroad business, or for the location of a city that may be expected to rival New Orleans in extent.

No serious obstacles were encountered on the route, with the exception of the Tennessee river, which requires a bridge about 1800 feet in length, and the lower chords of the arch through which it is proposed for boats to pass, will require to be at an elevation of ninety feet above low water.

The line of road is very direct, and the grading as light as could be anticipated. The following is an estimate of the probable cost of the road, the distance being assumed to be 175 miles. This is about the distance from Nashville to the northern terminus, which is some five or six miles shorter than to the southern.

Grading, including small bridges, at \$4,000 per mile.....	\$700,000
Iron, 100 tons per mile, cost \$50, at \$5,000 per mile.....	875,000
Timber for superstructure and laying down at \$1,500 per mile.....	262,500
Tennessee river bridge.....	125,000
	1,962,500
Add 10 per cent for contingencies.....	196,250
	2,158,750
Buildings and equipment.....	341,250
Total.....	\$2,500,000

A large part of the country through which this road would pass, is highly cultivated and thickly

populated; and at various points along the route there are valuable beds of ore.

#### New York.

**Northern Railroad.**—We are indebted to C. L. Schlatter, Esq., superintendent of this road, for a copy of the report of the examining committee, who were appointed at a meeting of the board of directors in June last, to examine the accounts of the different stations, and report on the management and working of the road. The committee made a personal inspection of the condition of affairs at each station on the route, and examined the master machinist and all the station agents, as to the manner in which the various business operations of the road were conducted. It is unnecessary for us to give a detailed report of the minutiae, but we will present a brief summary of the information obtained. The committee concur in the opinion that the operations of the road, throughout its various departments, are conducted with skill, industry and faithfulness. They also pay a deserved tribute to the judgment, ability and energy of Mr. Schlatter, which are such essential elements of proper management, and so indispensable to the successful operation of a railroad.

The equipments of the road consist of 20 locomotives; 14 first class passenger cars; 2 second class do; 4 postoffice and baggage cars; 237 eight wheel box cars; 164 eight wheel platform cars; 188 four wheel gravel and other cars; 14 four wheel iron and material cars, and 2 large size snow ploughs.

The twenty engines employed upon the road were all in working order, with the exception of one, which was undergoing repairs; and all the passenger cars were in good condition except one, which was being painted.

The freight and passenger station houses, blacksmith and machine shops, etc., are generally in excellent condition. At Ogdensburg is a large grain warehouse, 110 by 82 feet, capable of storing 168,000 bushels of grain, with steam elevators capable of taking up 2,000 bushels per hour. At Rouse's Point, the company own a row of four 2½ stories dwelling houses for workmen.

The following is a statement of the consumption of oil, from October 1, 1850, to June 1, 1851:

	Miles run.	Gallons.
In engines.....	202,608	1,878
Passenger and baggage cars 181,220		196
Freight cars.....1,352,708		1,423
Gravel cars.....	664,604	472
Machine shops.....		177
Office, stations, switches and miscellaneous.....		307
Total.....		4,453

The following is an account of the business of the road from April 1, to July 12, 1851:

Number of miles run by engines, on—	
Passenger trains.....	33,079
Freight trains.....	44,271
Gravel trains.....	24,154
Other trains and alone.....	983
	102,487

Number of miles run by cars:	
Passenger and baggage cars.....	97,311
Freight cars.....	700,319
Gravel cars.....	480,738
	1,278,368

Number of tons of freight carried for customers:	
Through freight going east.....	10,724
" " " west.....	2,465
Way " east.....	15,016
" " west.....	2,393
Total.....	30,598

Number of passengers carried:





that the former as well as the latter, should, as far as practicable, be controlled by the State."

Mr. Furman, of Kings, made a report in the Senate, in favor of constructing the Erie Railroad by the State. This bill was stricken out and one substituted for giving the company two dollars of stock for one dollar expended, which passed of 14 to 12.

Mr. Furman also made a strong report in favor of granting aid to the amount of \$1,000,000 to the New-York and Albany Railroad. In this report, he alluded to the chain of railroads through the central line of New-York, and from Albany to Boston, and to an association then recently formed, "for opening a regular steamboat communication between England and the city of Boston." "All this is done," says the report, "with a connected view to opening a new course of channel for trade, and that the facilities which will be thus afforded for a certain and speedy communication, must exert a considerable influence upon the business and trade of our State," unless counteracted by a railroad connection between the cities of New York and Albany.

Governor Seward, in his message of 1841, announced that forty-five miles of the Erie Railroad, from Piermont to Goshen, would be in operation in January, of that year—seventy-two miles in the whole being graded. That \$1,350,000 had been expended—that the total cost would be as estimated by the company, \$9,000,000, and that the company expected to complete the road in two years; and also, the Auburn and Rochester road, from Canandaigua to Rochester, was in operation in the preceding September.

Mr. Furman, in the Senate, made a report in favor of loaning the credit of the State to the Harlem Railroad Company, to the amount of \$350,000, to enable it to complete the road to the north line of Westchester, and connect with the Housatonic Railroad at or near Danbury, in Connecticut, and thus make a connection with Albany. The bill was not acted on.

In the Assembly, Mr. Culver, of Washington, made a report against the petitions for aid to the Erie Railroad. In this report, which is Doc. 297, he reviewed the legislation in regard to taking the road as a State work, and also took a view of the pecuniary condition of the State at that time, and came to a conclusion that the prayer of the petitioner ought to be denied; holding out encouragement that the State might assume the road, or aid in its construction, at a future day.

An act passed in 1841, authorizing the city of Albany to borrow \$350,000, and invest the amount in the Albany and West Stockbridge Railroad stock. And another to increase the capital of the Syracuse and Utica road to \$1,000,000.

In his annual message in 1842, Governor Seward recommended the Northern and Southern lines of railroad to the favorable consideration of the Legislature. In alluding to the Erie road, he stated that "the Legislature of 1836, appropriated to it a loan of public credit for \$3,000,000, but the conditions of the act being impracticable, the work was suspended until the law was modified, in 1840, since which period the enterprise has been vigorously prosecuted." "Portions, 232 miles in length, will be ready for a superstructure in the present month. A sum exceeding four millions of dollars has been expended, of which \$2,800,000\* was derived from the State loan. If prosecuted with the same energy as during the last year, the road will be completed in 1843." In the same message, he announced that the Canajoharie and Catskill, and the Ithaca and Owego Railroad Companies, "having failed in July and October last to pay the interest on the stock issued in their behalf, under laws passed in 1838 and 1840, the amount of that interest, equal to \$11,405, was paid at the Treasury. Proceedings of foreclosure have been instituted."

On the 14th of March, the Governor announced to the Legislature, in a special message, and on the authority of Mr. Bowen, the President of the New York and Erie Railroad Company, that "if legislative aid is longer withheld from the association, it must desist from prosecuting its great enterprise; the laborers employed must be discharged; the in-

terest on the three million State loan, due on the first of April next, will remain unpaid, and the contingent debt fall immediately upon the Treasury."

When the company failed to pay interest, the Controller, Mr. Flagg, gave notice for the sale of the road at public auction in the autumn of 1842. At the extra session of the Legislature, August 25, 1842, a joint resolution passed, directing the Controller to postpone the sale of the New York and Erie Railroad, until the first Tuesday in May, 1843.

On the 20th of May, 1842, the Ithaca and Owego, and the Catskill and Canajoharie Railroads, having been advertised for the preceding six months, were sold at auction, at the capitol—the first for the sum of \$4,500, and the other for the sum of \$11,600. The amount of stock issued to these two roads was \$515,700, the interest on which from the date of the default, to the time when the principal is reimbursable, amounts to \$510,627 87—total, \$1,026,327 87. Being a loss of more than a million of dollars after deducting the sum realized on the sale of the roads. Application was made in 1842 for a charter for a railroad along the Hudson River, which failed for want of a vote of two-thirds, in the Senate.

In his first annual message, in 1843, Governor Bouck stated that an almost entire new board of directors had been chosen for the Erie Railroad: and he suggested the enactment of "a law yielding the prior lien of the State mortgage to such incumbrances as may hereafter be created by the company, for the purpose of completing the road." And he expressed a hope that the road from Catskill to Canajoharie would eventually be completed.

The Erie Railroad Company was called on by the Senate to give an account of its funds on the 11th March, 1842, when its inability to pay interest was announced to the Governor. Dec. 38 shows that the amount of 6 per cent stock pledged at that date was \$439,000, on which the company had received the sum of \$385,908 68, and it is shown that the price of the stock, on that day was 80 cents for 100 of stock, leaving with brokerage, a deficiency against the company of \$31,806 18. The company had in cash on that day \$201 32, as certified by E. Pierson, Treasurer. This document also contains the copy of an assignment made by the company to James Bowen and his associates, in April, 1842, for the benefit of its creditors.

Mr. Faulkner introduced into the Senate a bill similar to the one reported by him in 1842, to aid in the construction of the New York and Erie railroad. This bill, as finally passed, suspended the sale of the road—authorized the company to issue bonds to the amount of \$3,000,000, and if the road was completed in seven years, and not purchased by the State, the State lien to be released. A railroad commissioner was authorized to be appointed by the Governor and Senate, who was to counter-sign the bonds. In case of the non-payment of these bonds, the Controller was required to sell the road. The bill passed the Senate 19 to 10, and the Assembly 68 to 25. It was decided in the House by a vote of 54 to 39, and in the Senate by a vote of 19 to 8, that this bill did not require for its passage a vote of two-thirds of the members. A resolution was adopted by the Assembly, requiring all railroads to make an annual report to the Secretary of State. This was introduced by Mr. Hathaway, of Chemung.

In October, 1843, the following persons were chosen Directors of the company, viz: Horatio Allen, James Browne, D. A. Cushman, H. Weed, J. Brown, T. Dehon, P. Spofford, C. M. Leupp, J. W. Edmonds, A. G. Phelps, M. Morgan, J. C. Green, William Maxwell, A. S. Diven, E. Risley. H. Allen was chosen President, and J. Brown Vice-President. On the 7th October this Board of Directors issued a notice to the public promising to investigate the affairs of the company, and if they find it practicable to surmount its embarrassments to call upon the public to aid them in the prosecution of the work.

The debt of the company, as shown in a subsequent report of the board, was found to be \$600,000, exclusive of the three millions due the State. A report made to the Senate, in 1845, states that this board rendered great service by reducing the affairs of the company to order.

In 1844, an act was passed, Chap. 335, authoriz-

ing the several railroads from Albany to Buffalo, to transport property, during the suspension of canal navigation, by paying to the State the same rate of toll, per mile, as the property would have paid on the Erie canal. The commissioner appointed under the act of 1843, for aiding the Erie railroad, W. Baker, made a report in 1844, Assembly Doc. No. 6. Mr. Baker examined the line of the road from Dunkirk to the Hudson, in company with Major Brown, the chief engineer, in the summer of 1846. It is stated in this report that the company had not accepted the act of 1843. That the avails of the three millions of State credit, as shown by the Treasurer's account, were \$2,600,079 05; and that the subscriptions to capital stock, \$1,537,926 14.

In 1845, application was made for a modification of the law of 1843, releasing the three millions to the Erie railroad, and Mr. Van Valkenburg, of Steuben, made a report in the Assembly favorable to the application, and introduced a bill. The new bill gave purchasers of bonds an absolute lien on the road in preference to the State lien, whether the road was finished as specified or not; the State relinquishing its prior lien to the individual holders of the bond, and at the same time holding it against the company, unless the road was completed to Lake Erie within six years from May, 1845. This bill passed the Assembly by 98 to 15, and the Senate 24 to 4.

Acts were passed this year for railroads from Attica to Hornellsville, Canandaigua to Corning, Seneca Lake to Elmira, Ogdensburg to Lake Champlain, Troy, to Greenbush, and authorizing the extension of the Harlem railroad to Albany.

In 1846, seven railroads were chartered, two of which have been constructed; the Hudson river, and the New York and New Haven. An act was passed appointing seven commissioners to determine on the route of the Erie railroad, at various points between the Hudson river and Binghamton. The commissioners were John B. Jervis, Orville W. Childs, Horatio Allen, Frederick Whittlesey, Jared Wilson, William Dewey, and Job Pierson. They were authorized to make surveys, and locate on a route different from that originally surveyed.

An act also passed at this session requiring the Tonawanda railroad to convey all kinds of products at the rates fixed in the law. And another (Sec. 17, of Chap. 215.) requiring all railroads, on application of the Post Master General, to enter into contracts for carrying the United States Mail.

In 1847, no new railroads were chartered. But acts were passed requiring the several railroad companies extending from the Hudson river to Buffalo to lay down an iron rail weighing fifty-six pounds the yard, and one track to be completed in two years from January 1, 1847; and they were authorized to borrow money for the purpose. These provisions are in Chap. 272, which also provides for checks to be attached to baggage, and a duplicate furnished to the owners. Chapter 222 fixes terms of accommodation in regard to passengers, &c., where different lines of railways connects. Companies are authorized to change the route of their roads, Chap. 404, and to increase their capital, or borrow money for laying down heavy rail, Chap. 405. The Oswego and Syracuse railroad authorized to carry freight during the whole year, paying canal tolls therefor. The Utica and Schenectady, and the other roads to Buffalo, authorized to do the same on like terms; and all railroads declared subject to the liabilities of common carriers, Chap. 270. There was also passed at this session one important law, Chap. 450, making railroad companies liable for damage in case of death caused by the wrongful act, neglect or default of the company or its agents, to be recovered by the personal representatives of the deceased, and apportioned to the widow and next of kin.

In 1848, a general law was passed for the organization of railroad corporations, as provided by the first Sec. Art. 8, of the Constitution of 1846. The 20th Sec. of this general law reserves to the Legislature the power of determining on application in each case, whether the proposed road is of sufficient public utility to justify the taking of private property for the route. In 1848 six laws of this character received the favorable action of both houses. In the case of a direct line from Syracuse to Rochester, which enlisted a strong interest in favor of

\* The sum of \$200,000 was added, making \$3,000,000 before the close of the month in which the Message was delivered.



as well as against it, the Legislature refused the endorsement of "public utility."

In 1849, laws were passed declaring the "public utility" of six routes for railroads, and granting a charter for the construction of a railroad across the Isthmus of Panama, under the grant made by the republic of New Granada to William H. Aspinwall, John L. Stephens, and Henry Chauncey. Acts were passed at this session prescribing the items to be returned in annual reports of railroads, Chap. 434. Amending the act of 1847, respecting death by wrongful act, &c. of company, by limiting the recovery to \$5,000, and providing for punishing the company's agent by imprisonment in the State prison or county jail, and also by fine.

In 1850 the general railroad law was amended so as to render any application to the Legislature unnecessary. This act, Chap. 140, authorizes any number of persons, not less than twenty-five, by subscribing a sum equal to \$1,000 per mile, and paying 10 per cent. of the amount, to file articles of association in the office of the Secretary of State, and become incorporated for the construction of a road. Previous to exercising the authority of taking private property for the roadway, the whole capital must be subscribed and ten per cent. paid thereon.

The following statement shows the number of railroads chartered, and the number subsequently constructed of those chartered in each year:—

Years.	Chart'd.	Const'd.	Years.	Chart'd.	Const'd.
1826....	1	1	1839....	4	1
1827....	none.		1840....	none.	
1828....	7	2	1841....	none.	
1829....	3	none.	1842....	1	
1830....	none.		1843....	*1	
1831....	4	2	1844....	none.	
1832....	27	3	1845....	5	4
1833....	6	3	1846....	7	2
1834....	10	5	1847....	none.	
1835....	2	none.	1848....	*7	
1836....	43	7	1849....	6	
1837....	14	none.			
1838....	3	none.	Total....	151	30

#### Ogdensburg Railroad.

An officer of the Vermont Central Railroad writes, under date of the 2d ult. :—

"A train of cars, with the engine and tender attached, passed over the bridge at Rouse's Point for the first time yesterday with complete success. It works to a charm. The bonds are going well. Freight is commencing in good earnest. Passengers are numerous, and for the last few days we have taken from ten to twelve hundred dollars a day for passengers alone. No one here doubts that the receipts this fall will be immense."

The well directed labors of the managers of our Railroad are beginning to produce the fruits of prosperity and success. The connecting link between this road and the eastern roads being now established, the great, and we may say only obstacle has been overcome, which stood in the way of a rapid and satisfactory transaction of business. Our road has had many obstacles to contend with, but by perseverance and steady application, they have been one by one removed, and the time is at hand, in our judgment, when all these labors, and this necessary expenditure of money, will bring an ample return to stockholders. The firm confidence which those who were best informed in the matter, have ever felt in the ultimate success and prosperity of this road, is being fully justified. Under the beneficial influence of the road, our great county has already risen from a state of comparative obscurity and lethargy, to a thriving, active, busy community. With the facilities thus opened to gain access to foreign markets, St. Lawrence has added nearly one half to her wealth, while her population is increasing in a corresponding ratio. The railroad is just what we wanted, and it is quietly and surely working out its own prosperity, and enriching the regions through which it passes. —*St. Lawrence Republican.*

\*Ithaca and Owego, changed by new charter to Cayuga and Susquehanna.

†Laws passed declaring public utility of seven roads to be constructed under general law of 1848.

## Practical and Scientific Books

PUBLISHED BY

HENRY CAREY BAIRD,

SUCCESSOR TO E. L. CAREY, PHILADELPHIA.

For sale by Dewitt & Davenport, Tribune Buildings, New York, and Booksellers generally throughout the United States and Canada.

Now being published in Twelve Parts, price 25 cents each, the PRACTICAL MODEL CALCULATOR, for the Engineer, Machinist, Manufacturer of Engine work, Naval Architect, Miner and Millwright.—By Oliver Byrne, Compiler and Editor of the Dictionary of Machines, Mechanics, Engine Work and Engineering, and Author of various Mathematical and Mechanical works—illustrated by numerous Engravings; forming, when completed, one large volume, octavo, of nearly 600 pages.

It will contain such calculations as are met with and required in the Mechanical Arts, and establish models or standards to guide practical men. The tables that are introduced, many of which are new, will greatly economise labor, and render the everyday calculations of the practical man comprehensive and easy. From every single calculation given in this work other calculations are readily modeled, so that each may be considered the head of a numerous family of practical results.

The examples selected will be found appropriate, and in all cases taken from the actual practice of the present time. Every rule has been tested by the unerring results of mathematical research, and confirmed by experiment, when such was necessary.

The Practical Model Calculator, will be found to fill a vacancy in the library of the practical working man long considered a requirement. It will be found to excel all other works of a similar nature, from the great extent of its range, the exemplary nature of its well selected examples, and from the easy, simple and systematic manner in which the model calculations are established.

Parts 1, 2 and 3 now ready.

American Miller and Millwright's Assistant, By W. C. Hughes. 12mo., illustrated.....	\$1 00
Byrne's Practical Model Calculator. In 12 parts, each.....	25
Byrne's Treatise on the American Steam Engine. 8vo., [in press].....	25
Booth's Encyclopedia of Chemistry. In one vol. royal 8vo., 974 pages, sheep.....	5 00
Builders' Companion. By A. C. Smeaton.—Seventy illustrations, 12mo., cloth.....	1 00
Cotton Spinner and Manufacturers' Companion. By Scott and Byrne. In one vol. 8vo., cloth, with large working drawings.....	3 50
Cabinet Maker and Upholsterer's Companion. 12mo., cloth.....	75
Dyer and Color Maker's Companion. 12mo., cloth.....	75
Elwood's Grain Tables. A new edition, in one vol. 12mo., cloth.....	1 00
Encyclopedia of Useful Knowledge. 8vo., illustrated.....	5 00
Fisher's Photogenic Manipulation. 16mo., cloth.....	62
Gregory's Mathematics for Practical Men. Illustrated, 8vo., cloth.....	1 50
Household Surgery, or Hints on Emergencies. By J. F. South, M.D. 12mo., cloth.....	1 25
Leslie's Complete Cookery. 41st edition, 12 mo., sheep.....	1 00
Morfit's Perfumery: its Use and Manufacture. 12mo., cloth.....	1 00
Morfit's Treatise on Tanning, Currying, and Leather Dressing in General. In one vol. large 8vo., [in press].....	1 00
Norris' Hand-book for Locomotive Engineers. By Septimus Norris. 12mo., cloth.....	1 50
Neill's Fruit, Flower and Kitchen Garden. Illustrated by numerous plates, 12mo. cloth.....	1 25
Overman on the Manufacture of Iron and Steel. Illustrated, 8vo., cloth, new edition.....	5 00
Practical Metal Workers' Assistant. By C. Holtzappel, with numerous illustrations, 8vo., cloth.....	4 00
Painter, Gilder, and Varnishers' Companion. New edition, 12mo., cloth.....	75
Randall's Sheep Husbandry in the South. Illustrated, 8vo., cloth.....	1 25
Steam for the Million. 8vo., paper.....	37

## To Contractors.

A DIVISION of about 30 miles of the grading, together with the mechanical works of the South Side Railroad, commencing near Farmville, and extending westward, will be let on the 15th of October next, at Farmville.

C. O. SANFORD, Chief Engineer.  
Petersburg, September 4th, 1851.

## Pneumatic process for making Foundations for Bridges, Piers, etc.

THE Attention of Engineers, Contractors, and Bridge Builders, etc., is directed to this method of forming secure foundations. Hollow Cylindrical piles from 8 inches to 10 feet in diameter may be sunk through sand, mud, clay, etc., to any required depth, and filled with concrete or masonry.

The efficacy and economy of the process has been demonstrated in the construction of numerous permanent works, at a much less cost than the use of any other method. (See evidence in Parliamentary enquiry, Railroad Journal, April 19, 1851.)

Contracts made, or licenses granted for the use of the invention in any part of the United States, by  
CHARLES PONTEZ,  
34 Liberty street, N. Y.

## To Contractors.

York and Cumberland Railroad, Maine.  
Portland, Sept. 12th, 1851.

PROPOSALS will be received at the office of the York & Cumberland Railroad Company in this city, from the 10th to the 15th day of Oct. next, for the grading, masonry and bridging of the York and Cumberland Railroad from Gorham Station to Great Falls, a distance of about 38 miles. Proposals will also be received at the same time and place, for building the entire line of said road, including the superstructure, or any one or more divisions thereof.

Plans, profiles and specifications will be exhibited, and all requisite information given at the office of the company, in Portland, on and after the 10th of October next.

Trains have run from Portland to Gorham during the past season; work has also been done to a considerable extent at the western end of the line, between Great Falls and Springvale.

The York and Cumberland Railroad, when completed will be the great interior line—in connection with the Boston and Maine Railroad—between Portland and Boston, and will command the principal travel between the two cities.

By order of the Board of Directors,  
JOHN A. POOR, President,  
JOHN F. ANDERSON,  
September 15. Chief Engineer.

## Railroad Iron.

THE undersigned, Agents for British Manufacturers, continue to sell Railroad Iron of the best quality, and of any weight or pattern required; deliverable at any part of the United States or Canada.

They have now on hand, ready for delivery at New York:

2,000 tons of an approved pattern, weighing about 60 lbs. to the yard.

WM. F. WELD & CO.,  
42 Central Wharf, Boston.

## RAILROAD SPRINGS.

### Fuller's India-rubber Springs.

THESE are now made in our own Factory, of the best materials. Each spring is guaranteed to perform the required work. Purchasers guaranteed against adverse claims.

Car Builders will save great expense by calling at the office of the Company.

23 Courtlandt St., New York.

## To Railroad Companies.

THE undersigned has discovered and patented an imperishable, cheap, and sufficiently elastic substance, to be introduced between the sill and rail, so that the stone sill can be used in place of the wooden sill: entirely overcoming that rigidity where the rail is laid directly on stone. Address  
J. B. GRAY, Philadelphia,

July 10, 1851.

4m

**Bridges & Brother,**  
DEALERS IN  
RAILROAD AND CAR FINDINGS,  
64 Courtlandt street, New York.

Having established a general Depot for the sale of articles used in the construction of Railroads, Locomotive Engines and Railroad Cars, we would invite your attention to our establishment. We have already in store a good assortment of CAR FINDINGS and other articles used in the trade, and feel justified in saying, that should you desire anything in our line, we can supply on terms perfectly satisfactory, and in the event of your desiring to order, you may feel assured that your terms will be as good as though you were here to make your own purchases.

Among our goods may be found Railroad Car Wheels, Axles, Jaws and Boxes, Nuts and Washers, Bolts, Brass Seat Hooks and Rivets, Window and Blind Springs, Lifters and Catchers, Door Locks, Knobs and Butts, Ventilators and Rings, Car Lamps, Coach and Wood Screws, Jack and Bed Screws and Babbitt's Metal; also Plushes, Damask, Enamelled Head Linings, Cotton Duck for Top Covering in width sufficient without seams, Curled Hair and all other articles appertaining to cars.

Also a new and valuable CAR DOOR LOCK, well adapted to the Sliding Door. This is decidedly the best yet introduced.

LOCOMOTIVE ENGINE LANTERNS, the best article made in the country. Whistles, Gauge and Oil Cocks, Hemp Packing, American, Russian and Italian. We are also agents for Lightner's Patent Journal Box for Car Axles, that invaluable invention, for the economical use and preservation of Car Journals.

Coach VARNISH and Japan of the best quality.

We would also offer our services for the purchase as well as for the sale of goods on commission.—Both members of our firm have had the experience of many years in the manufacture of Railroad Cars, and our Senior was a member of the well known house of DAVENPORT & BRIDGES, Car Manufacturers, Cambridgeport, Mass. With our knowledge of matters pertaining to Railroads, we feel quite confident in giving satisfaction to both buyer and seller, and hope that through assiduity and attention to any business entrusted to our care we shall merit a continuance of confidence and patronage.

BRIDGES & BROTHER.

July 22, 1851.

**Lightner's Patent Axle Boxes.**

THE Undersigned are Agents for, and offer for sale, *Lightner's Patent Axle Boxes*, for Railroad Cars and Tenders, which have, by thorough experience, been demonstrated to be one of the most valuable improvements ever introduced in Locomotion. The saving effected in oil alone, will in a few months pay the first cost of these boxes, independent of other advantages. They are now in use upon the following, among other roads, viz:

Boston and Worcester, Boston and Providence, Boston and Fitchburg, Nashua and Lowell, Providence and Worcester, Northern, N.H., Cheshire, Manchester and Lawrence, Concord, N.H., Concord and Claremont, Ogdensburg, (Northern, N.Y.), Stonington, New London Willimantic and Palmer, New Jersey Central, New Hampshire Central, Worcester and Nashua, Fitchburg and Worcester, Connecticut and Passumpsic, Lowell and Lawrence, Salem and Lowell, Wilton Branch, Newburyport.

Below will be found the certificates of a number of gentlemen, whose opinions will be good authority in every part of the country.

Office Boston and Prov. R. R.,  
Boston, Dec. 28, 1849.

Mr. JOHN LIGHTNER,

Sir,—It affords me pleasure to say, that after two years' trial of your boxes, I am fully and entirely satisfied of their superiority over any other pattern we have used. This superiority consists in economy of oil and freedom from "heating." I have tried every pattern of box in use, of any note, and do not hesitate to say, that you have devised one which in every respect combines greater advantages than any other within my knowledge; these advantages are so manifest, that I am fitting up all

our cars with your boxes, as fast as practicable.

Annexed, is a statement of an experiment with your boxes, the result of which may be of use to your interests.

Ten passenger cars, running 72 wheels, fitted up with Lightner's boxes used 41½ pints of Patent Oil, at 50 cts. per gallon, ran 43,099 miles, equal to 5-18 pints per wheel for 43,099 miles. Speed, 30 to 40 miles per hour.

Very respectfully yours,

W. RAYMOND LEE, Supt.

I have examined the above statement of Mr. Lee, and fully concur with him in his opinion of the superiority of Lightner's box.

GEORGE S. GRIGGS,  
Supt. Machine Shop B. & P. R. R.

Boston, July 26, 1849.

This is to certify that J. Lightner's axle boxes for railroad cars and locomotive tenders, have been in use on the Boston and Worcester railroad one year, and I unhesitatingly pronounce it, in my opinion, the best and most economical one in use, requiring less oil, of easy application, not susceptible of derangement, as in most kinds in use. When requiring repairs or renewal, the same may be done in one-fourth of the time usually occupied for that purpose. The box requires oiling not oftener than once a month—is kept quite free from dust, and consequently wears much longer than those generally in use.

D. N. PICKERING,  
Supt. Motive Power, B. & W. R. R.

Office of Boston Locomotive Works,  
December 12th, 1849.

The Boston Locomotive Company have been using J. Lightner's patent axle boxes under the tenders of their engines for several months, and find them more highly spoken of by the railroad companies that have used them in regard to economy in the use of oil, their durability and their ease of adjustment, than any other boxes which they have used. We therefore do not hesitate to recommend them to all railroad companies.

DANIEL F. CHILD,  
Treas. Boston Locomotive Works.

Taunton Locomotive Works,  
Taunton, July 7, 1849.

Mr. H. F. ALEXANDER,

Dear Sir,—Your favor of yesterday came to hand in which you ask what success we have met with, in using Mr. Lightner's patent box for cars, engines, &c.

We have put it in use on the Boston and Providence railroad, New Bedford and Taunton Branch railroad, Central railroad, N. J., Norfolk County, Rutland and Burlington, and as yet we have not had one complaint from them; and from what we have used of it, and witnessed, we do not hesitate to say that it is superior to anything in use for that purpose. It is simple in its construction, and easy of access, and the reservoir is held close to the shaft, and the oil and journal is perfectly secure from dust; they will run from four to six weeks without replenishing the oil. The brass in the box is changed very much easier than by any other plan that we have seen.

Very resp. yours,

W. W. FAIRBANKS, Agent.

Office Providence & Worcester R. R. Co.,  
Providence, Dec. 17th, 1850.

H. F. ALEXANDER, Esq.,

Sir,—The "Lightner patent boxes" for cars and locomotives have been in use under a portion of the passenger cars and engines of this company for upwards of two years, and have given very great satisfaction.

Though combining many excellent qualities, their great superiority consists in the economy of oil.

The result of experiments upon this road shows the consumption of oil by the use of this box, to be not more than one sixth part the quantity consumed by the use of the common box.

With the common box, eight passenger cars, 64 wheels, running 90 miles per day, consumed in 12 months 520 gallons of oil, being an average of 8½ gallon per wheel per annum.

With the Lightner box the same cars running the same number of miles per day, during the same space of time consumed 73½ gallons of oil, being an average of 1½ gallon per wheel per annum.

So manifest are its advantages over any other box used by this company, it is intended to place it under all our cars as soon as practicable.

Besides the saving of oil, as they afford complete security from dust, we think them more durable than any other box in use.

Another advantage resulting from the use of this box is, cars run more easier than with the common box. The saving in fuel which it would effect, would of itself, we think be a sufficient inducement to use this box in preference to any other known to us.

Very respectfully,

ISAAC H. SOUTHWICK, Supt.  
JOHN E. WINSLOW,  
Supt. Machine Shop, P. & W. R. R.

Cambridgeport, April 5th, 1851.

H. F. ALEXANDER, Esq.

Sir,—This may certify that I have been engaged in the manufacture of railway cars since 1834, and have built for the different railroad companies cars of all descriptions to the amount of three millions of dollars, and have used on the above cars all kinds of journal boxes, and find that none give better satisfaction than the "Lightner patent box," both on account of the saving of oil and the arrangement for taking out and re-placing the composition by means of the sliding key, and other conveniences which no other box possesses.

Yours respectfully,  
CHARLES DAVENPORT.

Worcester, March 17th, 1851.

H. F. ALEXANDER, Esq.

Dear Sir,—This is to certify that I have been for some years past engaged in building cars, and that I have tried most, if not all of the patent boxes, and have found Lightner's patent superior to all others as far as the saving of oil is concerned, also the ease with which they are fitted and exchanged in case they get out of order.

For the last three years, I have put them under all of the cars I have built, and in every instance they have given the most entire satisfaction.

Yours truly,  
OSGOOD BRADLEY.

Office Union Works, So. Boston,  
May 23d, 1851.

This certifies that I have applied Mr. J. Lightner's patent axle boxes to my locomotives and tenders for the past two years. I consider them superior to all others,—economical in their use, and possessing many important advantages not found in any other boxes.

SETH WILMARTH.

Office 15, R. R. Exchange, Boston,  
June 1, 1851.

This is to certify, that we have known the success of Lightner's patent journal boxes upon various roads in New England the past three years, and have been led to examine their peculiar construction.—We are well satisfied of their merits, and have adopted them upon our small gravel cars, and take pleasure, as we ever have done, in recommending their use upon all roads where we are employed in the construction.

GILMORE & CARPENTER,  
Contractors.

Amoskeag Manufacturing Co. Machine Shop,  
Manchester, May 31, 1851.

H. F. ALEXANDER, Esq.

Dear Sir,—We are using the Lightner box on all the engines and tenders we build, and we are satisfied that it is the best box in use, and recommend the same to all those who purchase engines at our works.

Yours respectfully,  
O. W. BAYLEY, Agt.

This is to certify that the Fitchburg railroad company having become satisfied of the superiority of J. Lightner's patent Axle Boxes for Railway Cars and Locomotive Tenders adopted the same



and are bringing them into general use upon their road.

One year's experience with the above improvement, has fully convinced me that there has never been anything offered to the public for that purpose which possess such intrinsic value; in fact, this is an improvement which seems to overcome all the difficulties found in all the various kinds now in use. It possesses very many advantages over all others: Some of which are [first] the first cost is much less than that of most boxes in use. [Secondly] 75 per cent is saved in oil; one gill applied to each Journal once a month, or one quart to an eight wheel car, is all these boxes require per month [Thirdly] no dust can gain access to the Journal, which is constantly lubricated with clean oil; hence the saving in repairs of Journals and composition bearings, is a matter of importance. [Fourthly,] its construction is truly simple—not complicated, having nothing liable to become loose by constant and severe service. [Fifthly] for convenience there is nothing which approaches this improvement.—The composition bearings may be removed from the Journals of an eight wheel car, by one man, and returned, or duplicates, in twenty minutes, while under the car: the same would require two men, at least half a day with other boxes in use.—The trucks and wheels using these boxes, are free from oil and dirt, usually seen upon all railroad cars, at great expense to the corporation.

NATH'L JACKSON.

Supt. Car Building and Repairs, F.R.R. Co.

Boston, March 9, 1849.

I hereby certify, that I have examined a box for Car Journals, invented by Mr. Lightner of Roxbury, Mass, and I have thought so well of it that I have adopted it on our railroad, I have known of its success on other roads.

S. M. FELTON,  
Supt. F. R. R.

Office of the Central R. R., N. J., }  
Elizabethtown, May 1849. }

H. F. ALEXANDER, Esq.,

Dear Sir:—Your favor, [wishing to be informed how we liked Lightner's patent axle boxes for R.R. Journals,] has been duly received; in answer we would say, we have used the boxes on Locomotive tenders one year, more or less, and on our cars some six months. I consider them the best boxes in every respect, I have ever used, or even seen used on any other roads—for safety, durability and the economy pertaining to all the details connected with the boxes and Journals of R. R. Car wheels; and we shall adopt them upon this road.

Yours Respectfully,

JOHN O. STEARNS.

Supt. Central Railroad Co., N. J.

Manchester, N. H., Nov. }  
1st, 1850. }

H. F. Alexander, Sir,

I have used "Lightner's Boxes" under all the Cars of the Manchester and Lawrence railroad, and feel no hesitation in saying that I think them to be the best boxes now in use.

Yours, &c.,

THEODORE ATKINSON, Agent.

Cheshire R. R. Office, Keene, }  
March 5th, 1851. }

Mr. H. F. Alexander,

Sir,—Lightner's Patent Boxes have been used on the Cheshire R. R. about a year, and have given the highest degree of satisfaction.

All the Passenger Cars now in use, and a considerable number of Merchandize Cars are furnished with them, and they will take the place of the Common Boxes on all the cars as fast as circumstances will permit.

Very Resp't.

L. TILTON,  
Supt. Cheshire R. R.

Boston and Worcester Railroad, }  
Boston, April 1st, 1851. }

H. F. Alexander, Esq.,

Dear Sir,—Lightner's Patent oil saving box for railroad cars, has been adopted by this corporation; we are taking out the common and substituting the

Lightner's at the rate of fifty boxes per month; it will soon take the place of all others, as it is decidedly preferable to any heretofore used by this corporation.

G. T. TWITCHELL, Supt.

Statement of amount of oil used on 32 8-wheel freight cars, on the Boston and Providence Railroad (with Lightner's Boxes) from March 10, 1849, to February 27, 1851, and upon 12 8-wheeled passenger cars from September 8, 1849, to February 27, 1851.

#### FREIGHT CARS.

Amount Oil.	No. months.	Amount Oil.	No. months.
1.—21 pts.	10	17.—23½ pts.	14
2.—19 "	6	18.—23½ "	11
3.—25 "	13	19.—36 "	21
4.—18 "	7	20.—22 "	10
5.—22 "	12	21.—38½ "	24
6.—24 "	13	22.—29 "	23
7.—20 "	11	23.—35½ "	23
8.—21 "	11	24.—37½ "	23
9.—23½ "	10	25.—51 "	23
10.—21 "	9	26.—31½ "	24
11.—20 "	9	27.—28½ "	23
12.—21½ "	11	28.—36 "	23
13.—19 "	8	29.—50½ "	24
14.—25½ "	17	30.—50 "	23
15.—20½ "	10	31.—41 "	23
16.—31 "	18	32.—39½ "	23

Total, 925½ pts. 510

#### PASSENGER CARS.

Amount Oil.	No. months.	Amount Oil.	No. months.
1.—19½ pts.	18	7.—30 pts.	18
2.—25½ "	18	8.—25½ "	18
3.—33½ "	16	9.—29 "	18
4.—19 "	15	10.—46½ "	17
5.—15 "	15	11.—9 "	9
6.—22 "	18	12.—65½ "	17

Total, 340 pts. 197

Averaging 1 4-5 pints of oil for freight, and 1 7-10 for passenger cars per month only!

All orders and enquiries promptly attended to.

BRIDGES & BROTHER,

No. 64 Courtlandt st., New York.

July 25, 1851.

#### To Boiler Makers, Engineers, etc., etc.

PATENT LAP-WELDED IRON TUBES,

Manufactured by the

BIRMINGHAM PATENT IRON TUBE CO.

UNDER

#### PROSSER'S PATENT,

from one and a quarter to eight inches in diameter.

These tubes are well known for their superiority over all other descriptions for Locomotive, Marine and other Steam Engine purposes, for which they are used very extensively in Great Britain and on the Continent of Europe.

For sale in quantities to suit purchasers, by

WILLIAM BIRD & CO.,

44 Wall st., New York.

July 26, 1851.

#### To Chief Engineers, Directors of Railroads, Canals, etc.

A Civil Engineer and Surveyor, who has been professionally engaged under the British Government, East India Company, etc., is desirous of obtaining employment as an Assistant. No objection to the South or West. Address for one month to C. E. & S., American Railroad Journal office.

August 16, 1851.

#### To Engineers.

A NEW WORK on the Marine Boilers of the United States, prepared from authentic drawings, and illustrated by 70 engravings, among which are those of the fastest and best steamers in the country, has just been published by B. H. Bartol, Engineer, and is for sale at the store of

D. APPLETON & CO.,

Broadway.

September 1, 1851.

#### CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.

Jan. 20, 1849.

#### European and North American Railway.

THE undersigned, the three persons first named in the first section of an act passed by the Legislature of Maine, and approved the twentieth day of August last past, entitled "An Act to incorporate the European and North American Railway Company," and being specially authorised therefor in and by said act, hereby give public notice that, for the purpose of receiving subscriptions to the stock of said company, as established by the act aforesaid, according to the provisions thereof, not exceeding forty thousand shares, books of subscription will be opened under the direction of the undersigned, according to the regulations prescribed, at the time and places following, viz:—On WED.

NEEDAY, the Twentieth day of August next, At Calais, Maine, with Noah Smith, Jr., Esq.

Eastport, do. " Col. Bion Bradbury.  
Machias, do. " Walker & O'Brien.  
Ellsworth, do. " Seth Tisdale, Esq.  
Oldtown, do. " Geo. P. Sewall, Esq.  
Bangor, do. " Geo. W. Pickering, Esq.  
Orono, do. " Hon. Israel Washburn, Jr.  
Waterville, do. " Hon. Timothy Boutelle.  
Brunswick, do. " Prof. William Smyth.  
Augusta, do. " B. A. G. Fuller, Esq.  
Belfast, do. " John Y. McClintock, Esq.  
Portland, do. " John B. Brown, Esq.  
Portsmouth, N.H. " Hon. I. Goodwin.  
Salem, Mass. " Stephen A. Chase, Esq.  
Boston, do. " Francis Skinner & Co.  
Lowell, do. " John Wright, Esq.  
Worcester, do. " Charles Washburn, Esq.  
Providence, R.I. " Billings Brastow, Esq.  
Hartford, Conn. " Hon. C. F. Pond.  
New Haven, do. " Allen Prescott, Esq.  
New York, N.Y. " R. & G. L. Schuyler, No 2 Hanover street.

Albany, do. " John V. L. Pruyn, Esq.  
Troy, do. " Hon. John D. Willard.  
Philadelphia, Pa. " Hon. Wm. C. Patterson.  
Montreal, Canada, " Hon. John Young.  
Quebec, do. " J. B. Forsyth, Esq.

Said books will remain open for ten successive days at the places and with the persons aforesaid. Dated at Portland, this sixteenth day of June, A. D. 1851.

ELIJAH L. HAMLIN,  
ANSON G. CHANDLER,  
JOHN A. POOR.

#### Trautwine on R. R. Curves.

By JOHN C. TRAUTWINE, Civil Engineer,  
Philadelphia, Pa.

IN press, and will be published in a few days; accompanied by a Table of Natural Sines and Tangents to single minutes, by means of which all the necessary calculations may be performed in the field.

This little volume is intended as a field-book for assistants; and will be found extremely useful, as it contains full instructions, (with wood cuts) for laying out, and adjusting curves; with Tables of Angles, Ordinates, etc., for Curves varying from 13 miles, down to 146 feet Radius.

A portable Table of Natural Sines and Tangents to minutes, has for a long time been a desideratum among Engineers, independently of its use in laying out curves.

The volume is neatly got up in duodecimo; and handsomely bound in pocket-book form.

Sold by Wm. Hamilton, Actuary of the Franklin Institute, Philadelphia. Price \$1.

Also in press, and will be issued in a few weeks, "Trautwine's Method of Calculating Excavation and Embankment."

By this method, which is entirely new, (being now made known for the first time) the cubic contents are ascertained with great ease, and rapidly, by means of diagrams, and tables of level cuttings. Thin octavo; neatly half bound, \$1. For sale by Wm. Hamilton.

June 28, 1851.

#### Railroad Iron.

CONTRACTS made by the subscribers, agents for the manufacturers, for the delivery of Railway iron, at any port in the United States, at fixed prices, and of quality tried and approved for many years, on the oldest railways in this country.

RAYMOND & FULLERTON, 45 Cliff st.

**Railroad Lanterns.**

COPPER and Iron Lanterns for Railroad Engines, fitted with heavy silver plated Parabolic Reflectors of the most approved construction, and Solar Argand Lamps; manufactured by

HENRY N. HOOPER & CO.,  
No. 24 Commercial St. Boston.

August, 16, 1849.

6m33

**Railroad Iron.**

THE Subscribers, Agents for the Manufacturers, are prepared to contract for the delivery of Railroad iron at any port in the United States or Canada, or at a shipping port in Wales.

WAINWRIGHT & TAPPAN,  
29 Central Wharf.

Boston, June 1, 1851.

**Bowling Tire Bars.**

40 Best Flange Bars 5½x2 inches, 11 feet long.  
40 " 5½x2 " 7 feet 8 in. long.  
40 " Flat " 6x2 " 11 feet long.  
40 " 6x2 " 7 feet 8 in. long.

Now in store and for sale by

RAYMOND & FULLERTON,  
45 Cliff street.

**To Railroad Companies,  
Machinists, Car Man-  
ufacturers, etc., etc.**

**CHARLES T. GILBERT,**  
NO. 80 BROAD ST., NEW YORK.

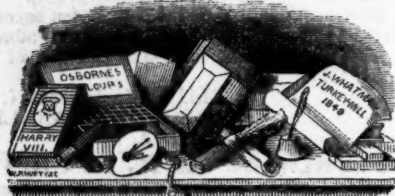
IS prepared to contract for furnishing at manufac-  
turer's prices—

Railroad iron,  
Locomotive Engines,  
Passenger and Freight Cars,  
Car Wheels and Axles,  
Chairs and Spikes.

Orders are invited; and all inquiries in relation to  
any of the above articles will receive immediate atten-  
tion

**Huffy's**

**Engineers, Architects and Draftsmen's  
STATIONERY EMPORIUM.**



WHATMAN'S Turkey Mill Drawing paper, Trac-  
ing paper, Plan and Profile, Protractors, Draw-  
ing Pins, Faber's, Jackson's and other makers' Pen-  
cils; Field, Level, and Memorandum Books of vari-  
ous patterns; Mathematical Instruments, Tape-lines,  
Mouth Glue, Cross Section paper, Triangles, Sabel  
Brushes, Gum Bands, Maiden Gum, Red Tape, Ink,  
Inkstands and Sand, Water Colors, Pallets, Patent  
Binders for letters, Portfolios, etc., together with a  
general assortment of Stationery and Blank Books.

All goods packed with care, and forwarded to any  
part of the United States.

JOSEPH HUFTY,  
Successor to H. L. Lipman,  
139 Chestnut st., Philadelphia.

May 15, 1851.

**Virginia Locomotive and Car  
Works.**

Wolfe Street and River Potomac, Alexandria, Va.  
**SMITH & PERKINS, Proprietors.**

**MANUFACTURE**

Locomotive Engines and Tenders.  
Marine and Stationary Engines and Boilers.  
Chilled Car Wheels and Axles.  
Patent Chilled and Wrought Slip-tire.  
Machinery and Castings generally.

The undersigned having erected very extensive  
shops, and procured the most modern machinery  
and tools, are prepared to execute orders for Loco-  
motive Engines, Cars, and Machinery of all kinds,  
with despatch, and on the most favorable terms.

R. C. SMITH,

Late of the Alexandria Iron Works.

THATCHER PERKINS,

Late Master of Machinery on the Balt. & O. R.R.

July 22, 1851.

THE Fourth Annual Exhibition of AMERICAN  
MANUFACTURES, by the MARYLAND INSTITUTE  
for the Promotion of the Mechanic Arts, will be  
opened in Baltimore on the 20th October, 1851.

The Exhibition will be held in the SPLENDID  
NEW HALL of the Institute, (fronting on Baltimore  
street) now being rapidly completed. Their edifice  
is centrally situated, chaste in its architecture, solid  
in its construction, and is by far the largest and  
most complete building in the United States, devoted  
to the Mechanic Arts. It may be added that this  
building is 355 feet long by 60 in breadth, with an  
average height of 68 feet, containing some twelve  
apartments, the largest of which is 255 feet by 60,  
and that the cost will be over \$70,000.

To this Exhibition, the Managers ask the atten-  
tion of all engaged in industrial pursuits through-  
out the country, and cordially invite them to con-  
tribute specimens of their best productions for pub-  
lic inspection, and to compete for the prizes offered  
by the Institute. These prizes consist of GOLD and  
SILVER MEDALS, DIPLOMAS, etc., which were last  
year distributed as follows:—Gold Medals, 16;  
Silver ditto, 90; Diplomas, 60; besides 85 articles  
of Jewelry, etc., to ladies. Fair play will be scrup-  
ulously observed towards all, and every facility of  
Steam power, shafting, fixture, labor, &c., &c.,  
will be amply provided free of expense. The ma-  
chinery will be under a special superintendent, and  
a fine display of it is looked for. The last exhibi-  
tion of the Institute was visited by more than  
40,000 persons, and with their vastly improved ac-  
commodations and alterations, this number will be  
doubled at the coming display, embracing many  
Virginians, Pennsylvanians, and other strangers  
from the South and West.

Joshua Vansant, President.

Ed. Needles, } Vice Presidents.

F. A. Fisher, }

Samuel Sands, Rec. Sec'y.

Wm. Prescott Smith, Cor. Sec.

F. J. Clare, Treasurer.

**BOARD OF MANAGERS.**

Ross Winans,  
P. S. Benson,  
Josiah Reynolds,  
Thomas Stowe,  
Thos. J. Lovegrove,  
A. Flannigan,  
E. Larrabee,  
John F. Davis,  
Wm. H. Keighler,  
Richard Edwards, Jr.,  
Wm. Bayley,  
R. Eareskson,

Simeon Alden,  
J. T. Watson,  
W. Robinson,  
Wm. A. Boyd,  
Adam Denmead,  
C. W. Bentley,  
Geo. R. Dodge,  
Saml. E. Rice,  
John F. Meredith,  
W. Abrahams,  
Thos. Trimble,  
Chas. Suter.

(The last nine in *Italics* are the Committee  
on Exhibition.)

The Hall will be opened for the reception of  
goods on MONDAY, 13th October; on the next Mon-  
day, 20th, at 7 P. M., the Exhibition will be formally  
opened to the public, and will positively close on  
Wednesday, 19th November. Articles for competi-  
tion must be in the Hall by Thursday night, Oct.  
16, unless delayed in shipment after starting in ample  
time.

Those who intend depositing, will give the Com-  
mittee or the Agent, notice as early as possible,  
stating the nature of the goods, and probable amount  
of room required, to exhibit them to advantage

Circulars, containing a view of the new Hall  
and the full regulations of the Committee, with  
special information, if required, may be had  
promptly, by addressing the undersigned, or the In-  
stitute's Agent, J. S. Selby, Baltimore, post-paid.

ADAM DENMEAD,

Chairman Com. on Exhibition for 1851.

**SUPERIOR BLACK WRITING & COPYING  
INK.**

**Jones' Empire Ink.**

87 Nassau st., Sun Building, New York city.

Net prices to the trade—  
Quarts, per dozen, \$1 50 6 oz. per dozen, \$0 50  
Pints, " 1 00 4 " " 0 37½  
8 ounces, " 0 62½ 2 " " 0 25

On draught per Gallon, 20 cents.

This is the best Ink manufactured. It flows freely,  
is a good copying ink, and will not mould, corrode,  
precipitate or decay. Orders for export, or home con-  
sumption, carefully and promptly attended to by

21st

THEODORE LENT.

**To Railroad Companies, etc.**

The undersigned has at last suc-  
ceeded in constructing and securing  
by letters patent, a Spring Pad-lock  
which is secure, and cannot be  
knocked open with a stick, like oth-  
er spring locks, and therefore particu-  
larly useful for locking Cars, and  
Switches, etc.

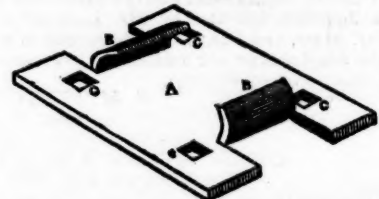
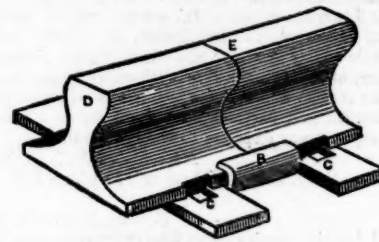
I also invite attention to an im-  
proved PATENT SPRING LOCK, for SLIDING  
Doors to Freight and Baggage Cars, now in use upon  
the Pennsylvania Central, Greensville and Columbia,  
S. C., Reading, Pa., and other Railroads.

Companies that are in want of a good Pad-lock, can  
have open samples sent them that they may examine  
and judge for themselves, by sending their address to

C. LIEBRICH,  
46 South 8th St. Philadelphia.

May 9, 1851.

**The American Railroad Chair  
Manufacturing Co.**



ARE prepared to make WROUGHT IRON RAIL  
ROAD CHAIRS, of various sizes, at short no-  
tice.

By use of the WROUGHT IRON CHAIR, the necessity  
of the wedge is entirely done away—the lips of the  
chair being set, by means of a sledge or hammer,  
close and firmly to the flange of the rail.

The less thickness of metal necessary in the Wrought  
Iron Chair gives much greater power and force to the  
spikes when driven—and consequently a much less  
liability to the spreading of the rails by reason of the  
spikes drawing or becoming bent.

The less weight necessary in the Wrought Iron  
Chair, will enable us to furnish them at a cost much  
below that of CAST IRON CHAIRS.

**DESCRIPTION OF THE ABOVE CUTS.**

Figure 1 is a perspective view of the rail secured in  
the chair, and fig. 2 is a perspective view of the chair  
itself. D, E, are sections of two rails placed together,  
and secured at the joint on the chairs by the jaws B, B.  
The chair is bolted down by spikes C, C. In fig. 2,  
the chair is represented as made of a single block or  
plate A of wrought iron.

The chair is set in its proper place on the track,  
spiked down, and the ends of the two rails brought  
together within the jaws as represented in fig. 1.

For further information address,

N. C. TROWERIDGE, Secretary,  
Poughkeepsie, N. Y.

June 1, 1851.

**Railroad Commission Agency.**

THE Subscriber offers his services to Railroad Co's  
and Car Makers for the purchase of equipment  
and furniture of roads and depots and all articles and  
materials required in the construction of cars, with  
cash or approved credit. No effort will be spared to  
select the best articles at the lowest market price.

He is sole Agent for the manufacture of the EN-  
AMELED CAR LININGS, now in universal use.  
The best Artists are employed in designing new styles,  
and he will make to order pieces with appropriate de-  
signs for every part of the car, in all colors, or with  
silver grounds and bronzed or velvet figures.

He is also Agent for Page's Car Window Sash Fas-  
teners, which is preferred by all who have used it to  
any other.

CHARLES STODDER,  
75 Kilby st., Boston.

June 20, 1851.

3m.